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ECONOMIC INDICATORS

3rd Quarter 1990 Data Volume 22 No. 3

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Virginia Employment Commission

FOREWORD

This publication is designed to depict the movement of Virginia's key economic indicators in graphic and tabular form with accompanying narrative analysis.

We welcome any comments, suggestions, or questions concerning Virginia Economic Indicators. Please address your comments to: Dolores A. Esser, Director, Economic Information Services Division, Virginia Employment Commission, P. O. Box 1358, Richmond, Virginia 23211. For additional information or explanation of the contents of this document, you may contact the Economic/Operations Research section at (804) 786-3177/5669.

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ECONOMIC OUTLOOK - U. S.

VOL. 22, NO. 3 THIRD QUARTER DATA

Forecast Update - 1990 Wrap-up and 1991, 1992, and 1993 Highlights

The U. S. economy for the first seven months of 1990 followed a path of modest but slowing growth.

- The economy proved surprisingly resilient to natural disasters, strikes, the savings and loan crisis, weakened auto and housing sales, and defense cuts in aerospace.

- Revised U. S. Commerce Department Gross National Product (GNP) figures and higher inflation at mid-year showed the economy was in "stagflation"--less than 2.0 percent real growth, 5.0 percent inflation.

Still both consumers and business continued to spend at modest paces, and it looked like the economy would narrowly miss the technical definition of recession (two consecutive quarters of negative growth).

On August 2, 1990, Iraq invaded neighboring Kuwait; the U. S. sent troops with a joint United Nations force to the Persian Gulf; and oil prices skyrocketed on world markets.

The sharply rising oil prices, as a result of the Persian Gulf crisis, appear to be "the straw that broke the recovery's back," ending the eight-year upswing and pushing the already weakened economy over the brink of recession.

Assuming the U. S. economy is in recession in Fourth Quarter 1990, signs point to a brief and shallow downturn.

- The projected energy shock should be much briefer than the 1973-74 and 1979 oil shocks. In fact, it is speculation that has driven up oil prices. There is currently no shortage of oil on world markets.

- Core inflation is not double-digit as it was in the two previous oil shocks.

- Inventories are basically in good shape because of widespread use of computer inventory management. There is no need for widespread inventory corrections.

- Germany and Japan, two major U. S. trading partners, now appear likely to avoid recession altogether.

- The relatively weak U. S. dollar will increase real exports and reduce real imports, providing a basically healthy climate for U. S. manufacturers.

- Operation Desert Shield will provide a mild stimulus for the U. S. economy, offsetting some of the other weaknesses.

- With an aging population, the U. S. labor force is currently growing slowly. The large number of teens entering the labor force in 1975 and 1981 added 1.5 percent to the jobless rates then.

Assuming a diplomatic solution to the Persian Gulf situation:

1991 will be basically a recession year.

- GNP growth will average only 0.4 percent with all the gain coming at the end of the year.

- The oil shock will push inflation to a 7.0 percent average.

- U. S. unemployment will average 6.7 percent.

1992 will see a gradual recovery.

- GNP growth will average just over 2.0 percent for the first time in three years. As the oil shock has passed through the system and the recession has wrung inflation out of the economy, the Consumer Price Index (CPI) change should be down to 4.7 percent.

- Being a lagging indicator, unemployment will be slow to drop, remaining at 6.8 percent nationally.

By 1993, the economy will be still improving with GNP growth at 2.7 percent, inflation at 4.4 percent, and unemployment at 6.4 percent.

Federal Reserve policy will be slightly accommodative in 1991 to fight the recession before returning to its principal goal of combating inflation.

A budget with both spending cuts and tax hikes was finally passed. Over the next few years, the deficit gradually improves.

The auto and housing industries will remain relatively weak over most of the forecast period.

The Northeast and upper Midwest will be most affected by the recession, while the Southeast and Southwest should see relatively few problems.

Alternate scenarios are:

- A quick military resolvement of the Persian Gulf crisis, while initially sending up oil prices, could in the long run lower oil prices. Lower oil prices plus increased military spending would stimulate the U. S. economy to faster growth.

- In the aftermath of the oil shock, a worldwide shortage of capital could develop.

William F. Mezger
Economist

HIGHLIGHTS
VIRGINIA ECONOMIC INDICATORS
THIRD QUARTER 1990

- Even with the general sluggish movement of the Virginia indicators in Third Quarter 1990, two series still managed to set records.

  - The average hourly factory wage rate was at a new high of $10.17 in all three months of the third quarter.

  - Average weekly earnings of production workers reached a record $413.67 in July.

- The Consumer Price Index for All Urban Consumers (CPI-U) averaged 131.6 (1982-4 = 100) in Third Quarter 1990. This was 1.5 percent higher than the 129.7 average of Second Quarter 1990. The Third Quarter 1990 CPI average was 5.5 percent above the Third Quarter 1989 average of 124.7. This was greater than the 4.7 percent CPI rise between Third Quarter 1988 and Third Quarter 1989. The 1.5 percent CPI gain in Third Quarter 1990 was also faster than the 1.3 percent increase in Second Quarter 1990. Inflation was increasing at a more rapid pace in Third Quarter 1990 because of sharply rising fuel prices in the aftermath of Iraq's August 2, 1990, invasion of Kuwait.

- According to preliminary data from the Bureau of Labor Statistics (BLS) of the U. S. Department of Labor, nationwide productivity increased at a 1.9 percent annual rate during Third Quarter 1990 in the business sector, as output rose 1.5 percent and the hours of all persons engaged in the sector decreased 0.4 percent (seasonally adjusted annual rates). This was the largest increase in business productivity since Third Quarter 1988 (when a 2.5 percent gain occurred). The hours' decrease partly reflects a decline in farming during the July-September period. During Second Quarter 1990, productivity had increased 0.6 percent. In Third Quarter 1990, business employment fell 0.1 percent, the first employment decline since 1982; and average weekly hours worked decreased 0.3 percent. The length of the average workweek has declined for the past four quarters.

- Also, according to BLS, median weekly earnings of the nation's 87.1 million full-time wage and salary workers were $408 in Third Quarter 1990, an increase of 3.3 percent from a year earlier.

- According to the Energy Information Administration of the U. S. Department of Energy, coal production in Virginia in the first ten months of 1990 at 42,492,000 short tons was 16.3 percent above Virginia's coal production of 36,521,000 short tons mined in the similar period of 1989.

VIRGINIA INDICATORS
Third Quarter Data

Again in the third quarter of 1990, the fifteen series used to measure the Virginia economy exhibited very little movement. In fact, it has been a number of years since a quarter has recorded so little change in the series. July saw five series unchanged; and in both August and September, six series remained the same. The movement that did occur, however, was slightly more negative than positive, especially after Iraq attacked Kuwait on August 2, 1990.

July was the strongest month with seven series positive, five unchanged, and three negative. Performances in August and September were almost identical with both periods recording three series up, six unchanged, and six down. The six-month moving average of rising indicators (page 18) serves to illustrate the quarter's performance. The moving average enhances analysis because it smoothes out much of the irregularity present in many of the individual series.

Two new records were set in the third quarter. The average hourly factory wage rate was at $10.17 in all three months of the quarter, and average weekly earnings of production workers reached $413.67 in July.

Little Change Noted in Third Quarter Indicators

The two employment series did not exhibit enough movement in the third quarter to show any change on our data summary (pages 18 and 19). Both nonagricultural wage and salary employment and manufacturing employment receded by a few thousand jobs, but were down by less than the 0.5 percent required to register change on the data summary tables. Up until the last three quarters, the employment series had consistently been the strongest gainers among the 15 indicator series.

The four unemployment series were overall just barely negative each month of the quarter. Off and on layoffs in the auto- and housing-related industries were keeping the unemployment series higher. The total unemployment rate was down 0.1 percent to 4.1 percent in July, but moved back to 4.3 percent in August and stayed there for September. Initial claims for unemployment insurance after a big increase in June to 8,797, rose slightly again in July, dropped below the June level in August, and then increased to 9,923 in September, the highest level in almost eight years. The insured unemployment rate rose 0.1 percent in July to 1.1 percent, stayed the same in August, and then rose another 0.1 percent to 1.2 percent in September. Unemployment insurance final payments jumped 14.6 percent in July and had a smaller 6.2 percent gain in August before dropping 8.5 percent to 1,889 in September.

The four production-worker series hardly moved at all this quarter. The length of the workweek hovered around 40.5 hours. Manhours worked increased marginally in July, but retrenchments in the next two months brought September's level down to

12,698.3 virtually identical with last April. The average hourly wage increased $.07 to a new high of $10.17 in July, then stalled there for the remainder of the quarter. Production worker weekly earnings rose to a record $413.67 in July, but then drifted off from that in August and September to finish the quarter at $411.24.

The five business-related series were fairly positive in July, but were slightly negative for the next two months. New business incorporations were down in July, rose in August, then fell off to 1,398 in September, the lowest level in over 3 1/2 years. The value of building permits issued increased in July to $178.8 million from June's five-year low of $113.1 million, but then declined in August and September, finishing the quarter at $148.0 million. New vehicle registrations rose above June's 30,023 in both July and August, but then plummeted to 27,098 in September, a 7-year low--after the Persian Gulf crisis pushed up gasoline prices. Electric power sales were up in July, fell to slightly below the June level in August, and then rose to 4,358 million kilowatt hours in September, just below the July level. Power sales mainly followed weather patterns this quarter. Taxable retail sales were down moderately in July and August, then rose 6.2 percent to $3,932.4 million in September, the third highest level recorded this year.

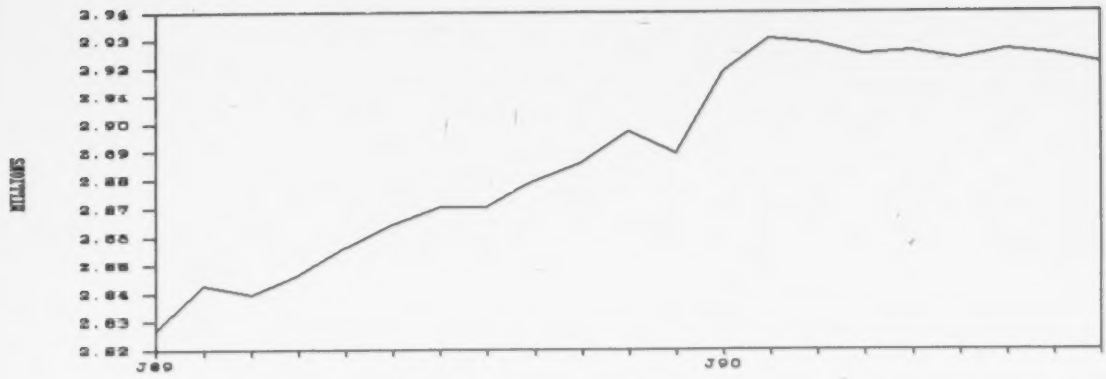
William F. Mezger
Economist

EMPLOYMENT INDICATORS
JANUARY 1989 TO SEPTEMBER 1990

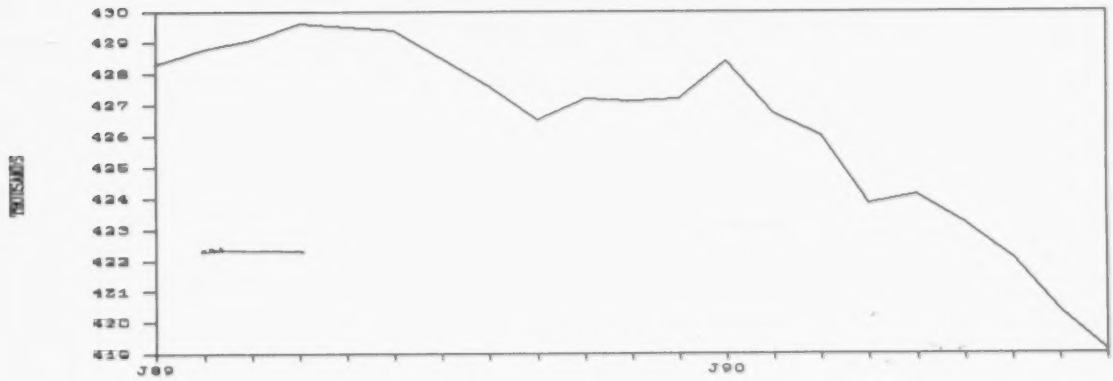
	Nonagricultural Wage and Salary Employment* (Thousands)		Manufacturing Employment* (Thousands)		Total Unemployment Rate* (Percent)	
1989	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	2,779.0	2,827.1	424.8	428.3	4.4	4.1
February	2,789.5	2,843.0	426.1	428.8	4.5	4.2
March	2,808.9	2,839.6	426.4	429.1	4.2	4.0
April	2,837.6	2,846.4	427.4	429.6	3.5	3.5
May	2,868.2	2,856.0	428.1	429.5	3.7	3.9
June	2,901.1	2,864.5	430.2	429.4	3.9	3.9
July	2,875.7	2,870.2	427.8	428.5	3.3	3.6
August	2,871.5	2,870.6	429.4	427.6	3.1	3.3
September	2,895.9	2,879.5	429.4	426.5	3.9	3.9
October	2,904.8	2,886.2	430.5	427.2	4.2	4.4
November	2,919.0	2,897.0	429.4	427.1	4.2	4.2
December	2,913.4	2,889.4	428.2	427.2	4.1	4.1
1990						
January	2,870.0	2,918.4	424.9	428.4	4.6	4.2
February	2,875.7	2,930.6	424.0	426.7	4.4	4.1
March	2,897.6	2,929.0	423.0	426.0	3.9	3.7
April	2,915.8	2,924.8	421.6	423.8	3.4	3.4
May	2,938.2	2,925.9	422.4	424.1	3.8	4.0
June	2,960.3	2,923.0	424.1	423.2	4.2	4.2
July	2,932.1	2,926.4	421.5	422.1	3.8	4.1
August	2,925.8	2,924.9	422.1	420.4	4.1	4.3
September	2,937.6	2,921.4	421.8	419.1	4.3	4.3

* These series have been adjusted to First Quarter 1989 benchmarks.

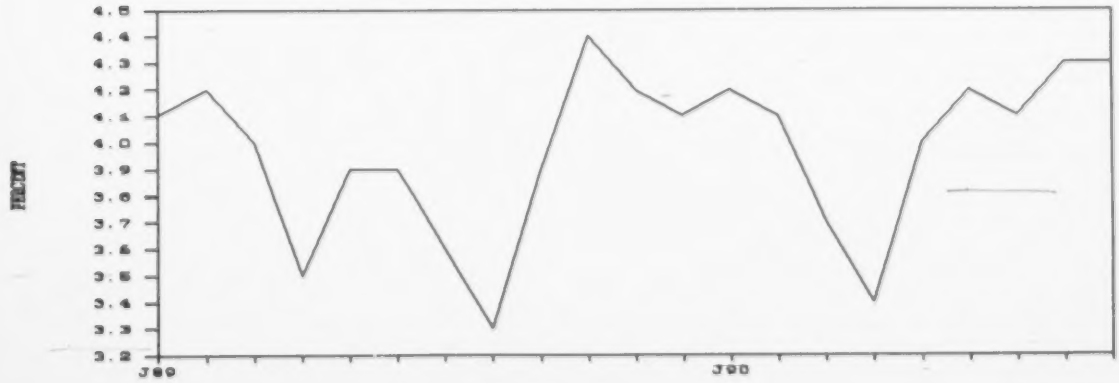
NONAG W & S EMPLOYMENT



MANUFACTURING EMPLOYMENT



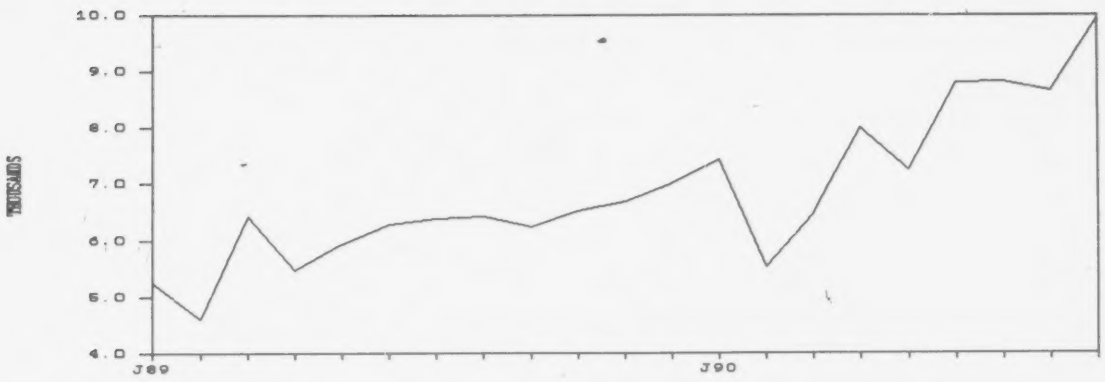
TOTAL UNEMPLOYMENT RATE



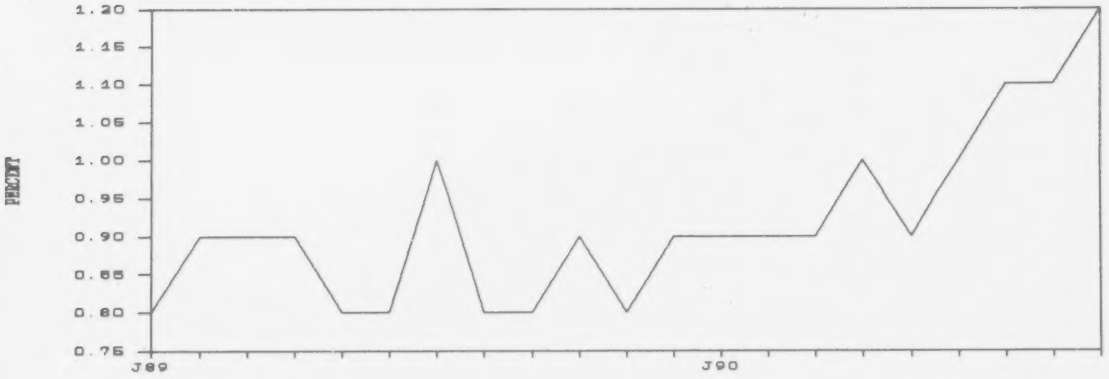
UNEMPLOYMENT INSURANCE INDICATORS
JANUARY 1989 TO SEPTEMBER 1990

	Average Weekly Initial Claims		Average Weekly Insured Unemployment (Percent)		Unemployment Insurance Final Payments	
1989	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	8,114	5,261	1.2	0.8	1,582	1,557
February	5,283	4,612	1.2	0.9	1,491	1,517
March	5,825	6,409	1.1	0.9	1,935	1,547
April	4,350	5,460	0.9	0.9	1,985	1,471
May	4,112	5,934	0.7	0.8	1,870	1,622
June	5,679	6,273	0.7	0.8	1,652	1,525
July	6,507	6,384	0.9	1.0	1,602	1,518
August	4,309	6,412	0.7	0.8	1,430	1,554
September	3,852	6,238	0.6	0.8	1,278	1,526
October	4,554	6,510	0.6	0.9	1,325	1,721
November	6,379	6,679	0.7	0.8	1,174	1,619
December	14,308	7,003	1.1	0.9	1,243	1,457
1990						
January	11,446	7,424	1.3	0.9	1,789	1,766
February	6,330	5,524	1.2	0.9	1,499	1,523
March	5,887	6,468	1.1	0.9	1,798	1,428
April	6,345	8,009	1.0	1.0	1,965	1,464
May	5,021	7,256	0.8	0.9	2,027	1,765
June	8,007	8,797	0.8	1.0	1,848	1,697
July	8,985	8,814	1.0	1.1	2,045	1,944
August	5,787	8,646	0.9	1.1	1,907	2,064
September	6,118	9,923	0.9	1.2	1,585	1,889

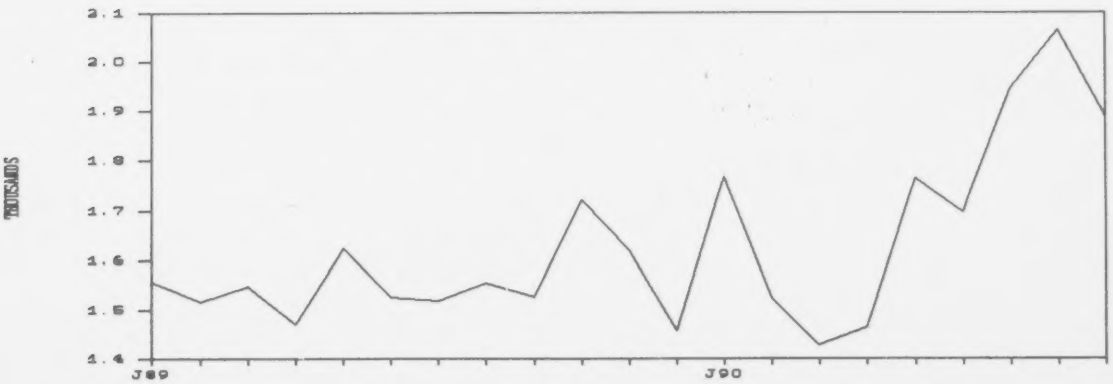
AVG. WEEKLY INITIAL CLAIMS



INSURED UNEMPLOYMENT RATE



U.I. FINAL PAYMENTS

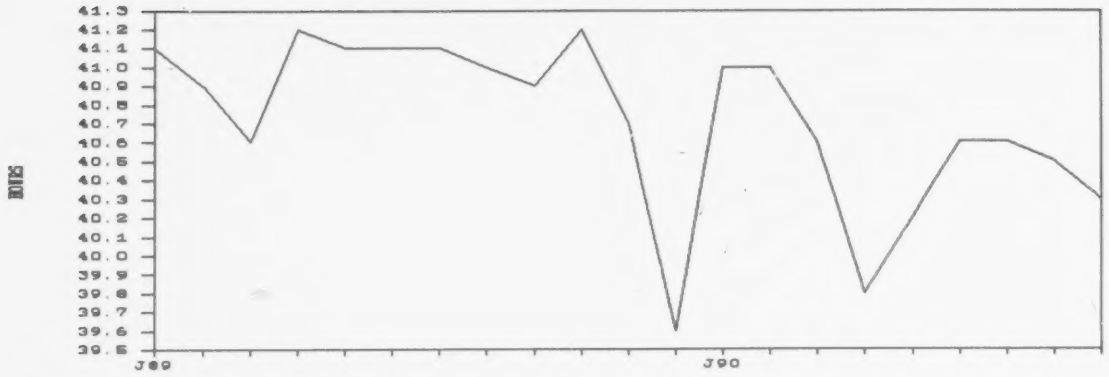


MANUFACTURING PRODUCTION WORKER INDICATORS
JANUARY 1989 TO SEPTEMBER 1990

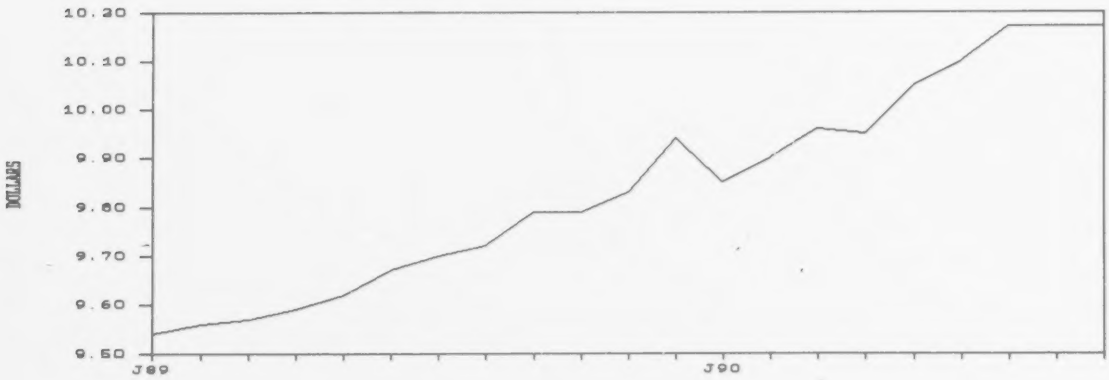
	Average Weekly Hours*		Average Hourly Earnings* (Dollars)		Deflated Average Hourly Earnings* (1982-84 Dollars)	
1989	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	40.8	41.1	9.56	9.54	7.99	7.95
February	40.1	40.9	9.57	9.56	7.96	7.94
March	40.4	40.6	9.59	9.57	7.94	7.89
April	41.0	41.2	9.58	9.59	7.87	7.86
May	41.1	41.1	9.60	9.62	7.84	7.87
June	41.2	41.1	9.64	9.67	7.85	7.88
July	40.8	41.1	9.69	9.70	7.87	7.89
August	40.8	41.0	9.71	9.72	7.88	7.91
September	41.4	40.9	9.80	9.79	7.93	8.01
October	41.4	41.2	9.75	9.79	7.85	7.91
November	41.3	40.7	9.83	9.83	7.90	7.91
December	40.1	39.6	9.98	9.94	8.01	7.96
1990						
January	40.7	41.0	9.87	9.85	7.84	7.81
February	40.2	41.0	9.91	9.90	7.84	7.82
March	40.4	40.6	9.98	9.96	7.85	7.80
April	39.6	39.8	9.94	9.95	7.81	7.81
May	40.2	40.2	10.03	10.05	7.82	7.85
June	40.7	40.6	10.07	10.10	7.82	7.85
July	40.3	40.6	10.16	10.17	7.89	7.91
August	40.3	40.5	10.16	10.17	7.82	7.85
September	40.8	40.3	10.18	10.17	7.77	7.77

* These series have been adjusted to First Quarter 1989 benchmarks.

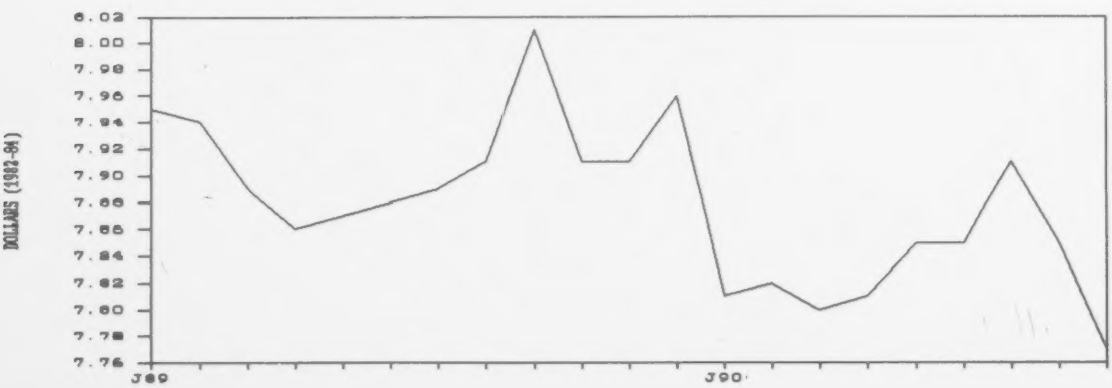
AVERAGE WEEKLY HOURS



AVERAGE HOURLY EARNINGS



AVG. HOURLY EARNINGS/CPI

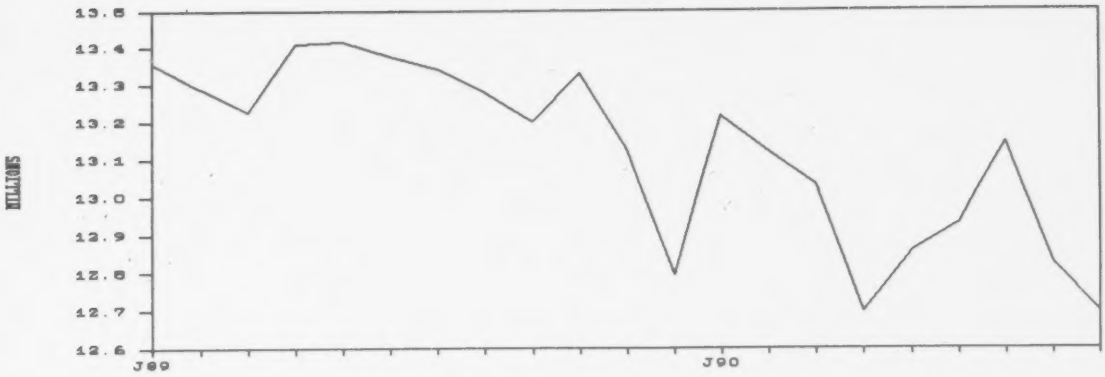


PRODUCTION WORKER INDICATORS (CONTINUED)
JANUARY 1989 TO SEPTEMBER 1990

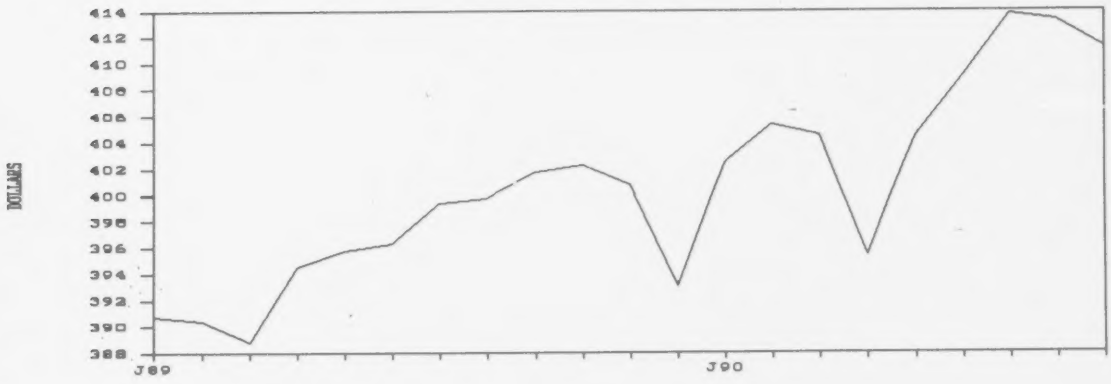
	Average Manhours* (Thousands)		Average Weekly Earnings* (Dollars)		Deflated Average Weekly Earnings* (1982-84 Dollars)	
1989	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	13,182.5	13,357.2	390.05	390.75	325.86	326.54
February	12,996.4	13,288.1	383.76	390.38	319.27	323.12
March	13,077.5	13,227.5	387.44	388.80	320.73	320.68
April	13,284.0	13,411.0	392.78	394.51	322.48	322.63
May	13,345.2	13,417.4	394.56	395.74	322.09	323.38
June	13,451.8	13,378.1	397.17	396.30	323.43	323.36
July	13,194.7	13,342.7	395.35	399.38	320.90	324.67
August	13,255.9	13,281.0	396.17	399.72	321.57	324.79
September	13,463.3	13,202.5	405.72	401.75	328.25	325.97
October	13,488.1	13,329.6	403.65	402.26	325.00	325.00
November	13,418.4	13,128.1	405.98	400.72	326.35	323.08
December	12,960.3	12,794.2	400.20	393.06	321.19	314.89
1990						
January	13,047.0	13,219.0	401.71	402.42	319.07	319.78
February	12,835.1	13,123.2	398.38	405.35	315.17	318.98
March	12,886.4	13,034.7	403.19	404.54	317.22	317.12
April	12,578.9	12,698.5	393.62	395.36	309.21	309.37
May	12,784.6	12,855.7	403.21	404.48	314.27	315.62
June	12,998.9	12,928.6	409.85	408.91	318.45	318.34
July	12,999 6	13,145.1	409.45	413.67	318.14	321.90
August	12,799.3	12,825.3	409.45	413.29	315.20	318.48
September	12,949.9	12,698.3	415.34	411.24	316.81	314.55

* These series have been adjusted to First Quarter 1989 benchmarks.

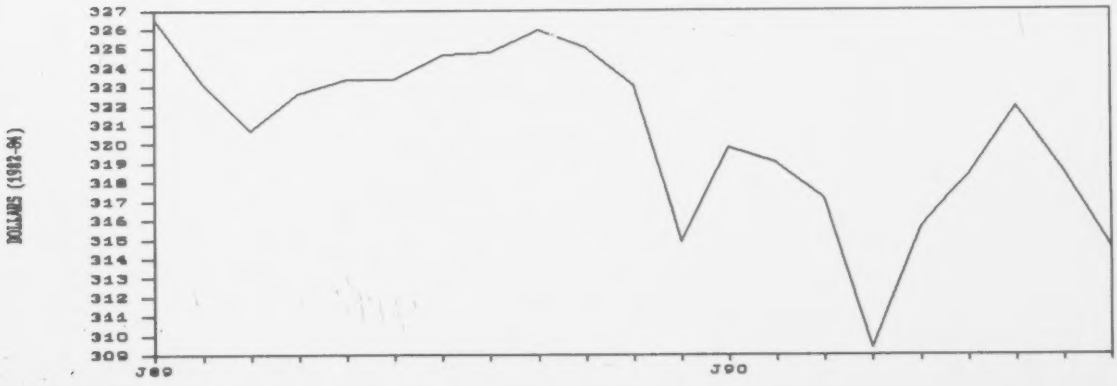
AVERAGE MANHOURS



AVERAGE WEEKLY EARNINGS



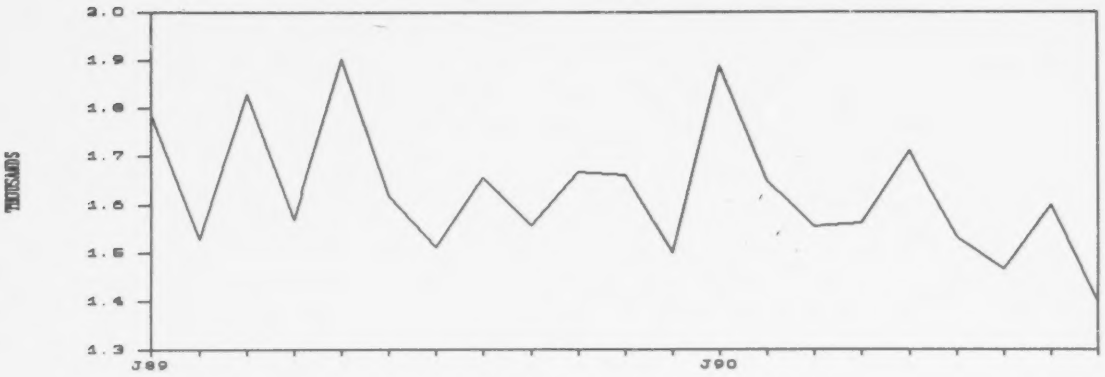
AVG. WEEKLY EARNINGS/CPI



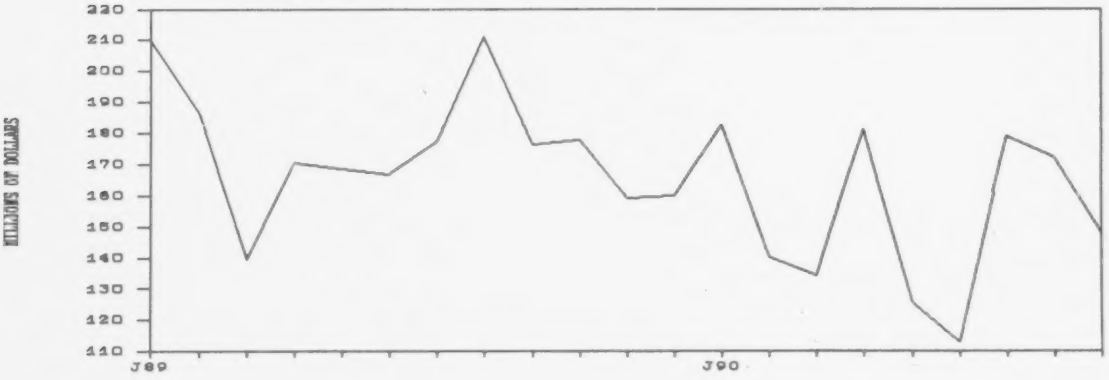
BUSINESS INDICATORS
JANUARY 1989 TO SEPTEMBER 1990

	New Business Incorporations		Valuation of Building Permits ($ Millions)		New Vehicle Registrations	
1989	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	1,639	1,786	162.6	209.9	36,521	35,959
February	1,559	1,527	142.6	186.2	31,065	35,771
March	2,142	1,827	149.6	139.3	35,217	34,223
April	1,631	1,569	155.7	170.4	37,980	35,956
May	1,947	1,902	182.7	168.3	40,490	37,370
June	1,665	1,619	237.6	166.4	40,902	35,481
July	1,471	1,510	193.4	177.0	40,820	36,518
August	1,677	1,656	226.8	210.8	34,503	34,349
September	1,465	1,556	175.4	176.3	37,891	34,578
October	1,644	1,666	175.5	177.8	36,069	34,384
November	1,476	1,659	148.7	159.2	26,635	33,659
December	1,481	1,499	138.3	159.9	22,148	30,095
1990						
January	1,732	1,888	139.7	182.6	32,551	32,055
February	1,684	1,648	107.2	140.2	29,031	33,367
March	1,827	1,553	144.0	134.4	34,317	33,398
April	1,618	1,561	163.0	181.2	36,359	34,472
May	1,751	1,710	136.2	125.6	36,933	34,181
June	1,578	1,532	162.3	113.1	34,670	30,023
July	1,426	1,466	197.8	178.8	34,817	31,103
August	1,618	1,599	186.7	172.2	33,428	33,252
September	1,319	1,398	147.8	148.0	29,640	27,098

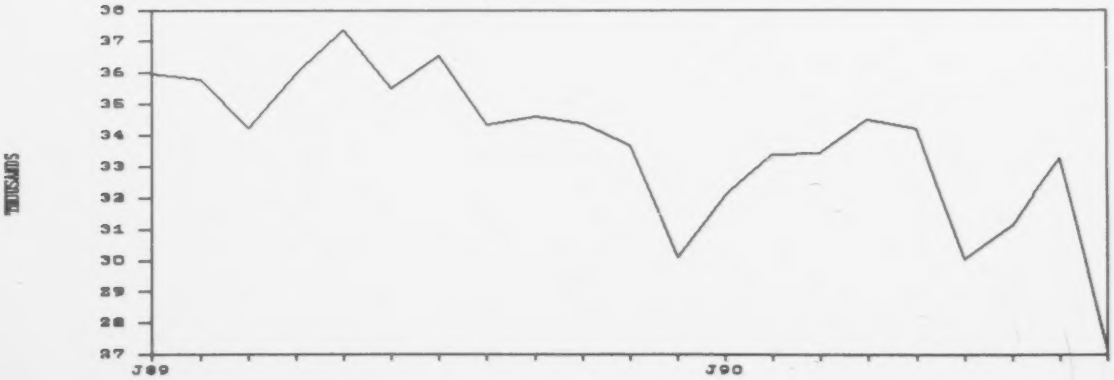
NEW BUSINESS INCORPORATIONS



VALUATION OF BUILDING PERMITS



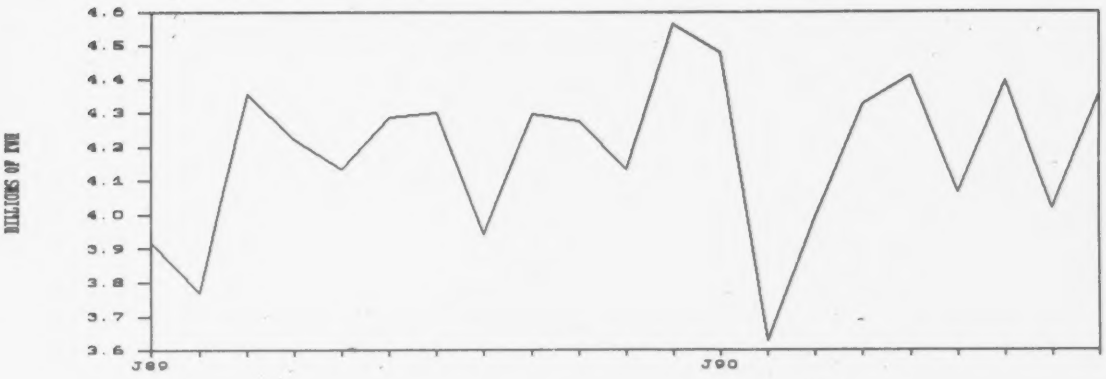
NEW VEHICLE REGISTRATIONS



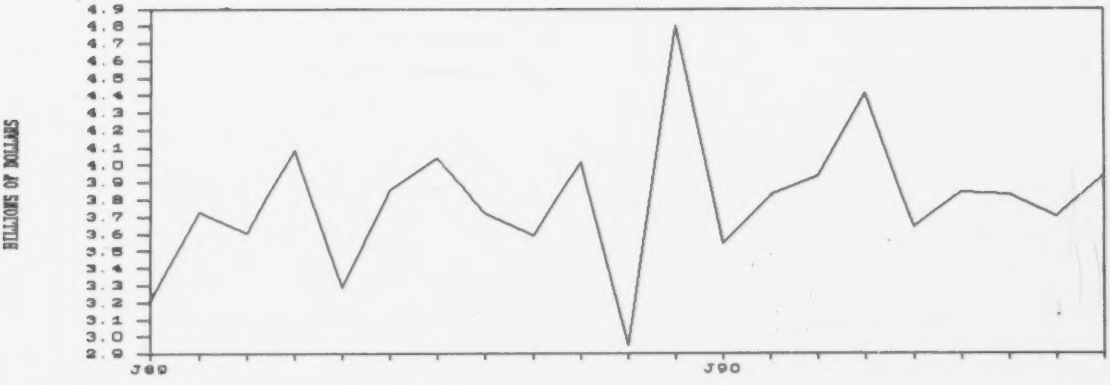
BUSINESS INDICATORS (CONTINUED)
JANUARY 1989 TO SEPTEMBER 1990

	Electrical Power Sales (Millions of KWH)		Taxable Retail Sales (Millions of Dollars)	
1989	Unadjusted	Adjusted	Unadjusted	Adjusted
January	4,602.7	3,919.6	2,795.4	3,210.5
February	4,243.0	3,768.3	3,727.5	3,724.5
March	4,486.8	4,355.9	3,329.1	3,604.6
April	3,765.7	4,222.2	3,756.6	4,084.6
May	3,431.2	4,135.8	3,515.0	3,287.2
June	4,099.9	4,286.9	3,974.4	3,852.7
July	4,650.2	4,300.6	4,032.0	4,037.5
August	4,523.0	3,940.9	3,717.4	3,717.4
September	4,414.2	4,295.3	3,682.9	3,592.3
October	3,702.3	4,275.4	3,949.2	4,019.6
November	3,562.2	4,133.0	3,053.8	2,950.5
December	4,587.3	4,565.3	5,432.0	4,800.1
1990				
January	5,261.2	4,480.4	3,087.1	3,545.5
February	4,085.0	3,628.0	3,825.9	3,822.8
March	4,114.0	3,994.0	3,633.6	3,934.3
April	3,856.4	4,323.9	4,054.1	4,408.1
May	3,657.5	4,408.6	3,887.3	3,635.4
June	3,890.4	4,067.8	3,959.7	3,838.4
July	4,754.4	4,396.9	3,822.7	3,827.9
August	4,614.0	4,020.2	3,702.6	3,702.6
September	4,478.6	4,358.0	4,031.6	3,932.4

ELECTRICAL POWER SALES



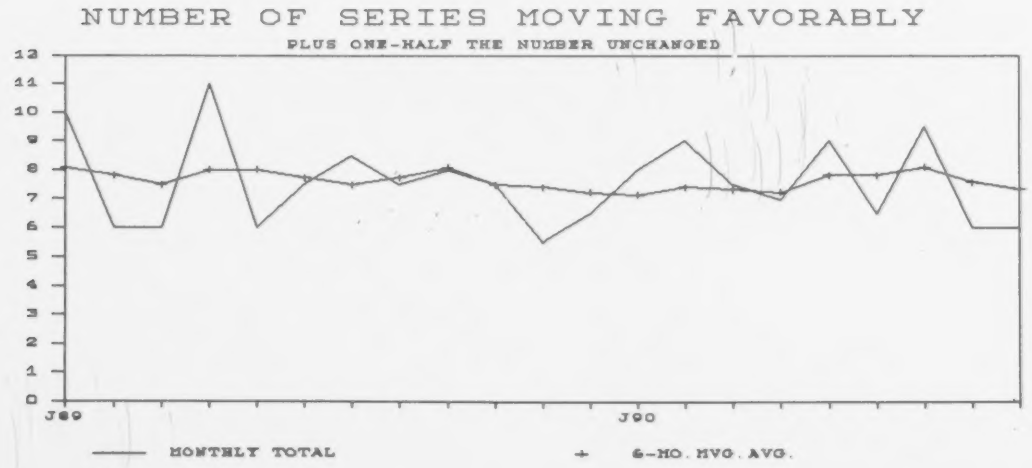
TAXABLE RETAIL SALES



DATA SUMMARY SEPTEMBER 1990 (SEASONALLY ADJUSTED DATA)	Sep. 1990	Aug. 1990	Sep. 1989	Percent & Direction** of Change Aug. '90- Sep. '90	 Sep. '89- Sep. '90
EMPLOYMENT					
*Nonag Wage & Salary Emp (000)	2,921.4	2,924.9	2,879.5	-0.1 (0)	1.5 (+)
*Manufacturing Employment (000)	419.1	420.4	426.5	-0.3 (0)	-1.7 (-)
*Total Unemplomeent Rate	4.3	4.3	3.9	(0)	(-)
UNEMPLOYMENT INSURANCE					
Average Weekly Initial Claims	9,923	8,646	6,238	14.8 (-)	59.1 (-)
Insured Unemployment Rate (%)	1.2	1.1	0.8	(-)	(-)
Final Payments	1,889	2,064	1,526	-8.5 (+)	23.8 (-)
MANUFACTURING PRODUCTION WORKERS					
*Average Weekly Hours	40.3	40.5	40.9	-0.5 (0)	-1.5 (-)
*Average Manhours (000)	12,698	12,825	13,203	-1.0 (-)	-3.8 (-)
*Average Hourly Earnings ($)	10.17	10.17	9.79	0.0 (0)	3.9 (+)
*Average Weekly Earnings ($)	411.24	413.29	401.75	-0.5 (0)	2.4 (+)
BUSINESS					
New Business Incorporations	1,398	1,599	1,556	-12.6 (-)	-10.2 (-)
Valuation of Bldg Permits ($M)	148.0	172.2	176.3	-14.1 (-)	-16.1 (-)
New Vehicle Registrations	27,098	33,252	34,578	-18.5 (-)	-21.6 (-)
Electrical Pwr Sales (M of KWH)	4,358	4,020	4,295	8.4 (+)	1.5 (+)
Taxable Retail Sales ($M)	3932.4	3702.6	3592.3	6.2 (+)	9.5 (+)

* Revised to First Quarter 1989 benchmarks.
** (+) Favorable, (-) Not Favorable, (0) Change less than 0.5%.

SUMMARY



DATA SUMMARY AUGUST 1990 (SEASONALLY ADJUSTED DATA)	Aug. 1990	Jul. 1990	Aug. 1989	Percent & Direction** of Change Jul. '90- Aug. '90	 Aug. '89- Aug. '90
EMPLOYMENT					
*Nonag Wage & Salary Emp (000)	2,924.9	2,926.4	2,870.6	-0.1 (0)	1.9 (+)
*Manufacturing Employment (000)	420.4	422.1	427.6	-0.4 (0)	-1.7 (-)
*Total Unemploment Rate	4.3	4.1	3.3	(-)	(-)
UNEMPLOYMENT INSURANCE					
Average Weekly Initial Claims	8,646	8,814	6,412	-1.9 (+)	34.8 (-)
Insured Unemployment Rate (%)	1.1	1.1	0.8	(0)	(-)
Final Payments	2,064	1,944	1,554	6.2 (-)	32.8 (-)
MANUFACTURING PRODUCTION WORKERS					
*Average Weekly Hours	40.5	40.6	41.0	-0.2 (0)	-1.2 (-)
*Average Manhours (000)	12,825	13,145	13,281	-2.4 (-)	-3.4 (-)
*Average Hourly Earnings ($)	10.17	10.17	9.72	0.0 (0)	4.6 (+)
*Average Weekly Earnings ($)	413.29	413.67	399.72	-0.1 (0)	3.4 (+)
BUSINESS					
New Business Incorporations	1,599	1,466	1,656	9.1 (+)	-3.4 (-)
Valuation of Bldg Permits ($M)	172.2	178.8	210.8	-3.7 (-)	-18.3 (-)
New Vehicle Registrations	33,252	31,103	34,349	6.9 (+)	-3.2 (-)
Electrical Pwr Sales (M of KWH)	4,020	4,397	3,941	-8.6 (-)	2.0 (+)
Taxable Retail Sales ($M)	3702.6	3827.9	3717.4	-3.3 (-)	-0.4 (0)

DATA SUMMARY JULY 1990 (SEASONALLY ADJUSTED DATA)	Jul. 1990	Jun. 1989	Jul. 1989	Percent & Direction** of Change Jun. '90- Jul. '90	 Jul. '89- Jul. '90
EMPLOYMENT					
*Nonag Wage & Salary Emp (000)	2,926.4	2,923.0	2,870.2	0.1 (0)	2.0 (+)
*Manufacturing Employment (000)	422.1	423.2	428.5	-0.3 (0)	-1.5 (-)
*Total Unemploment Rate	4.1	4.2	3.6	(+)	(-)
UNEMPLOYMENT INSURANCE					
Average Weekly Initial Claims	8,814	8,797	6,384	0.2 (0)	38.1 (-)
Insured Unemployment Rate (%)	1.1	1.0	1.0	(-)	(-)
Final Payments	1,944	1,697	1,518	14.6 (-)	28.1 (-)
MANUFACTURING PRODUCTION WORKERS					
*Average Weekly Hours	40.6	40.6	41.1	0.0 (0)	-1.2 (-)
*Average Manhours (000)	13,145	12,929	13,343	1.7 (+)	-1.5 (-)
*Average Hourly Earnings ($)	10.17	10.10	9.70	0.7 (+)	4.8 (+)
*Average Weekly Earnings ($)	413.67	408.91	399.38	1.2 (+)	3.6 (+)
BUSINESS					
New Business Incorporations	1,466	1,532	1,510	-4.3 (-)	-2.9 (-)
Valuation of Bldg Permits ($M)	178.8	113.1	177.0	58.1 (+)	1.0 (+)
New Vehicle Registrations	31,103	30,023	36,518	3.6 (+)	-14.8 (-)
Electrical Pwr Sales (M of KWH)	4,397	4,068	4,301	8.1 (+)	2.2 (+)
Taxable Retail Sales ($M)	3827.9	3838.4	4037.5	-0.3 (0)	-5.2 (-)

* Revised to First Quarter 1989 benchmarks.

** (+) Favorable, (-) Not Favorable, (0) Change less than 0.5%.

THE VIRGINIA LEADING AND COINCIDENT INDEXES

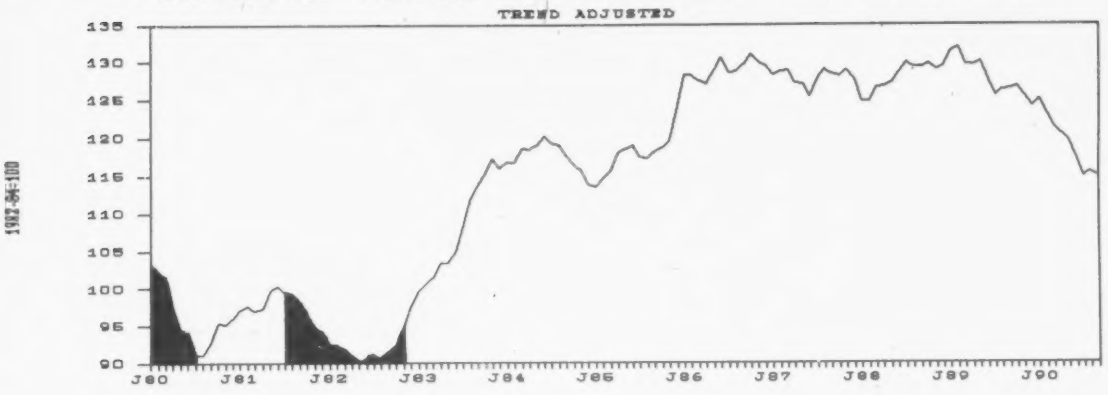
	Leading Index (82-84=100)	Monthly Percent Change	Quarterly Percent Change	Coincident Index (82-84=100)	Monthly Percent Change	Quarterly Percent Change
January,1989	131.38	+1.4		123.46	-0.1	
February	131.90	+0.3	+1.1	123.30	-0.1	+0.2
March	129.58	-1.7		123.24	-0.0	
April	129.67	+0.0		124.63	+1.1	
May	130.00	+0.2	-1.4	125.36	+0.5	+1.4
June	127.51	-1.9		125.56	+0.1	
July	125.47	-1.5		125.49	-0.0	
August	126.25	+0.6	-2.3	127.14	+1.3	+1.2
September	126.37	+0.0		127.49	+0.2	
October	126.76	+0.3		125.55	-1.5	
November	125.41	-1.0	-0.4	123.69	-1.4	-1.9
December	124.15	-1.0		123.35	-0.2	
January,1990	125.01	+0.6		123.82	+0.3	
February	122.97	-1.6	-1.8	124.07	+0.2	+0.0
March	121.34	-1.3		124.77	+0.5	
April	120.40	-0.7		126.44	+1.3	
May	119.60	-0.6	-3.3	126.85	+0.3	+1.6
June	117.10	-2.0		125.45	-1.0	
July	114.87	-1.9		124.11	-1.0	
August	115.40	+0.4	-3.3	123.50	-0.4	-2.1
September	114.89	-0.4		123.10	-0.3	

The Virginia Leading Index is adjusted to a 1982-84 base and includes Average Weekly Hours for Production Workers; New Businesses; Valuation of Building Permits, deflated to 1982-84 dollars; and Average Weekly Initial Claims. The Virginia Coincident Index includes Nonagricultural Wage and Salary Employment; Total Unemployment Rate; Taxable Retail Sales, deflated to 1982-84 dollars; and Average Hourly Earnings of Manufacturing Production Workers, deflated to 1982-84 dollars. The Coincident Index also uses a 1982-84 base. All series are adjusted for seasonality and month of cyclical dominance.

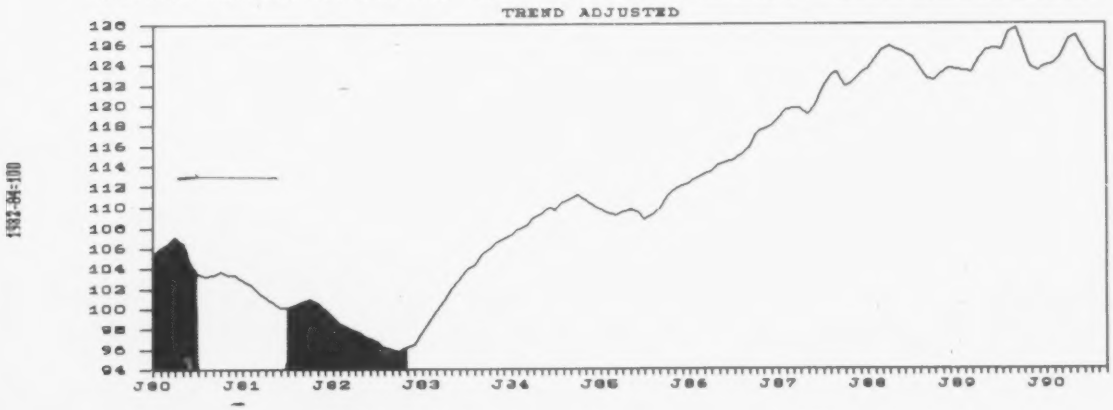
Once again, none of the changes of the Leading Index components from the previous quarter were favorable. Increases in Initial Claims for Unemployment Insurance paced the continued decline of the Index. The Leading Index has now declined in each of the last six quarters.

The Coincident Index declined as an increase in the Total Unemployment Rate and a decrease in the adjusted CPI more than offset the increase in adjusted Hourly Earnings and the flat performance of Nonagricultural Employment.

VIRGINIA INDEX OF LEADING INDICATORS



VIRGINIA INDEX OF COINCIDENT INDICATORS



A LOOK AT THE DOWNTURN'S PROBABLE IMPACT ON REGIONS OF VIRGINIA

With the probability that Virginia, like the nation, is currently in a mild downturn and the fact that the Economic Information Services Division is receiving numerous inquiries about conditions in the various localities, now might be a good time to review the probable impact of the downturn on the various regions of Virginia.

Statewide employment growth is expected to slow from the 3.5 to 5.5 percent range of the late 1980s and the 2.1 percent average job increase projected for 1990 to only 0.6 percent average job growth in 1991. Unemployment should creep up from a 3.9 percent average rate in both 1988 and 1989 to a projected 4.1 percent average rate in 1990 and a 5.0 percent average rate in 1991.

As is almost always the case, the downturn will impact the various regions differently:

NORTHERN VIRGINIA experienced a real boom in the mid-1980s with employment expanding 6.0 to 7.0 percent annually. It was Virginia's fastest growing Metropolitan Statistical Area. Northern Virginia also was Virginia's first major area to experience the downturn with employment growth turning slightly negative by the end of 1990. Because Northern Virginia accounts for one-fifth of Virginia's labor force, it has been largely responsible for the slowed state job growth in 1990.

Northern Virginia's problems have primarily been in two areas:

Real Estate and Construction:

> Northern Virginia is at the tip end of the over-built mid-Atlantic real estate market. The commercial real estate market is saturated and private homes are remaining unsold. Because of this real estate saturation, construction employment has plummeted 20 percent.

Defense and Electronics:

> With the end of the Cold War in Europe, defense cuts in aerospace have hit hardest in Virginia at Northern Virginia's defense contractors. Also, layoffs earlier in the year resulting from reduced demand for telephone and computer equipment have added to unemployment.

Cutbacks in these two areas have largely been in white-collar jobs--architects, engineers, real estate salesmen, computer and aerospace specialists, and electronic technicians. Many of the displaced construction workers live outside of Northern Virginia, and this has increased unemployment in a 50-mile band around the metro area. Because of the above layoffs and the uncertainty among federal workers about getting a budget passed this fiscal year, retail sales have been off for most of 1990.

Unemployment in Northern Virginia has risen from a 1.5 percent labor shortage situation in 1988 and 1989 to the mid-2.0 percent range now. Joblessness will probably average 3.0 percent or better in 1991--higher than Northern Virginia has been accustomed to, but still lower than most other areas in the country. It will probably be several years before the surplus of

real estate is worked off, and more aerospace defense cuts will mean competition for existing federal contracts will intensify with large defense contractors underbidding smaller firms for contracts in which they previously lacked interest. On the plus side, and putting a floor under the local economy, are the approximately 300,000 federal civilian and military personnel in the area who should continue to spend for goods and services. Also, as military bases are closed elsewhere, there should be some consolidation of defense activities around the Pentagon. An ambitious development of consolidated military offices is planned for the Ft. Belvoir area.

HAMPTON ROADS, to date, has experienced more disruptions from the Persian Gulf situation than from the sagging economy. The deployment of large numbers of military personnel to the Middle East has caused a 5,000-6,000 reduction in the labor force. A number of military personnel were moonlighting in the civilian economy. Operation Desert Shield has cost about 4,000 trade and service jobs in primarily fast-food establishments catering to the military; and with the head of the household away, military families have postponed the purchase of cars, furniture, and other big ticket items. Some of this lost business will be made up when reservists come into the area to replace the regular forces.

Hampton Roads' tourist business was hurt in summer by weakened economies in the states to the north from which most visitors to the beaches and Williamsburg come--New York, New Jersey, Pennsylvania, Maryland, and Ohio. A similar situation should persist into 1991. Some Tidewater localities are also experiencing moderate real estate overbuilding and sagging home sales. These problems should still be around in 1991.

The auto-related industries in Norfolk and on the Peninsula have had some down weeks and will probably experience some more time off as long as vehicle sales remain weak.

On the plus side, Hampton Roads' key shipbuilding industry which comprises almost one-half of manufacturing employment looks stable at the current high level for 1991 and 1992. Some problems might surface here in 1993 and later as ship contracts for the Navy are completed. The ports have been successful in 1990 in getting some important shipping contracts away from Baltimore, and Europe 1992 should mean increased port activities. (See the Second Quarter 1990 issue of Economic Indicators for a very fine discussion of Europe 1992 by guest author Dr. K. Thomas Varghese of James Madison University.) The shipment of supplies to the Persian Gulf has already meant increased port activities. Hampton Roads does not have very many recession-prone textile, apparel, and consumer durable goods manufacturers to experience layoffs in a downturn. If the Navy does some cost-cutting, it could mean forces from other bases may be consolidated in Hampton Roads. Usually the defense component stabilizes and helps the Hampton Roads' economy ride out recessions.

If the Persian Gulf situation is resolved quickly, there could be a mini-spending boom in Hampton Roads when the troops come home.

Employment growth in 1991 should be less than 1.0 percent and unemployment will rise slightly from the 4.6 percent 1989 average unemployment rate to average 4.8 percent in 1990 and average in the low 5.0 percent range for 1991.

RICHMOND-PETERSBURG is usually the state's most stable area because of the headquarters companies and financial and educational institutions located there. A diversified and stable manufacturing base also helps. Construction in the Richmond area has held up better than most other places, and several large projects will go on into 1991. Budget problems could cause reduced spending by state and local government workers. Employment growth should be around 1.0 percent in 1991, and unemployment should inch up from the upper 3.0 percent range now to the mid-4.0 percent range in 1991.

ROANOKE is another very stable area. The Roanoke Valley has developed a significant mail-order and distribution industry in recent years. Lending stability to the local economy is the area's position as a transportation hub. Construction is also holding up well with several long-range projects. The area may see a few brief layoffs in the textile and furniture components, but nothing very serious. About 1.0 to 2.0 percent job growth and mid-4.0 percent unemployment is expected in 1991.

LYNCHBURG, so far, has largely escaped any major textile layoffs. Also, construction seems to be holding up fairly well. Because of its manufacturing concentration, Lynchburg may see some layoffs in 1991; but with the generally good inventory balance, these layoffs likely will not be as severe as in 1981-1982. Recent growth at educational institutions has lent stability to the local economy, but tight budgets will probably prevent much growth in 1991. About 1.0 percent employment growth is projected with unemployment in the mid-5.0 percent range for 1991.

CHARLOTTESVILLE is currently seeing slowing growth with budget problems at the University and construction winding down. Some outer counties are getting some construction workers returning from Northern Virginia. Not a lot of growth in 1991, but as usual, unemployment should not be very high either--probably in the 3.0 to 4.0 percent range.

DANVILLE-MARTINSVILLE-SOUTH BOSTON are beginning to experience some layoffs in textiles and apparel, especially in knit and fleece goods. With the generally favorable export and inventory situation, perhaps these layoffs will not get a whole lot worse. Unemployment in 1991 should be in the 7.0 to 8.0 percent range.

The rest of **SOUTHSIDE VIRGINIA** likely will experience some temporary textile layoffs with unemployment in the 6.0 to 9.0 percent range.

FREDERICKSBURG, which saw good growth in 1990, may see some slowing in 1991. While the local economy is basically sound, fallout from Northern Virginia construction may push unemployment past 6.0 percent.

The economies of the **EASTERN SHORE** and **NORTHERN NECK** should continue to follow seasonal patterns with more jobless construction workers in 1991. Unemployment should be in the 7.0 to 9.0 percent range in 1991.

The **SHENANDOAH VALLEY** from Roanoke north has prospered in the last half of the 1980s. Short-term layoffs in the auto-related industries have occurred in 1990, and more will be likely in 1991 as long as car sales nationally remain weak. Manufacturing industries, most subject to recession, are concentrated around

Winchester, Waynesboro, and Buena Vista. Budget problems could cause some cuts at state institutions. Unemployment in 1991 should generally be in the 5.0 to 6.0 percent range.

NEW RIVER VALLEY may be the most depressed area in the state in 1991. The closing of the 1,000-worker AT&T plant in Pulaski County, coupled with auto-related plant layoffs and defense cuts at the Radford Arsenal, could push New River Valley unemployment to double-digit levels. Virginia Tech and Radford University, normally stabilizing influences, will be minus factors because of state budget woes.

BRISTOL, **MARION**, and **GALAX** likely will experience some temporary manufacturing dislocations in 1991 with unemployment generally in the 6.0 to 8.0 percent range.

Far **SOUTHWEST VIRGINIA** has just recently recovered from the downturn of the early 1980s. A record amount of coal is currently being mined, but the mines are highly automated. The new prison and some other new service employers have brought improvement to the local economies. Renewed interest in coal as an energy source may help this region. Unemployment in 1991 should average between 7.0 and 10.0 percent.

William F. Mezger
Economist

HISTORICAL SUMMARY
PERFORMANCE OF INDICATORS OVER THE BUSINESS CYCLE

GENERAL INFORMATION: For those interested in studying the business cycle in Virginia, this publication includes several of the economic time series for which data is readily available on a monthly basis. From time to time, new series will be added and, if necessary, others presently included will be discontinued.

Business Cycle Turning Points

The shaded spaces on the charts represent the 1980 and 1981-82 recessions as designated by the National Bureau of Economic Research (NBER). The beginning of a recession is defined as the month when aggregate economic activity in the U. S. reaches a cyclical high, from which it begins to turn down, and the end as the month when it reaches a cyclical low, from which it begins to turn up. According to NBER, the 1980 recession began in January 1980 and ended in July 1980, and the 1981-82 recession began in July 1981 and ended in November 1982.

Seasonal Adjustment

To correlate changes in a time series and changes in the business cycle it is desirable to eliminate, insofar as possible, the effect of irrelevant factors from the data comprising the series. All series currently published in Indicators have been adjusted to minimize regular seasonal fluctuations in the data in order to show only activity related to the business cycle.

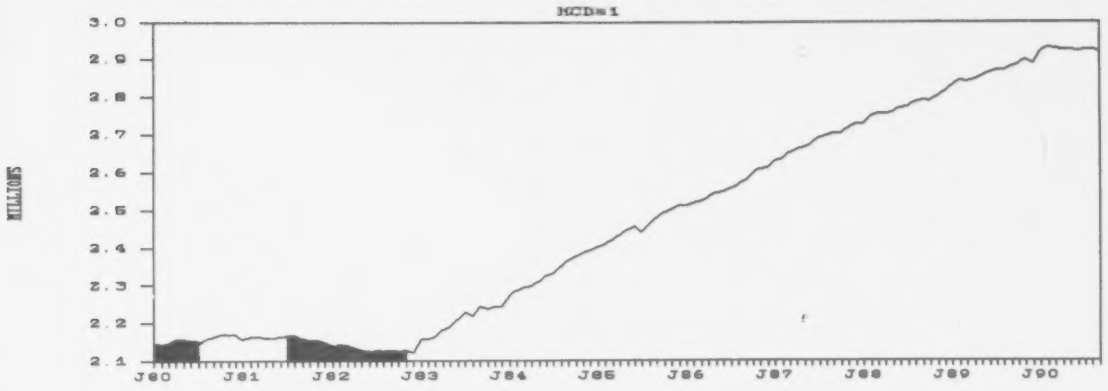
Months for Cyclical Dominance (MCD)

After seasonal adjustment there often remains a significant degree of purely random change, the effect of which can be minimized with a moving average equal in length to the MCD of the series. The MCD is an estimate of the length of the moving average which will reveal the cyclical pattern among the welter of random fluctuations in the data--the greater the MCD the more random and less cyclically significant are monthly changes in the series. Where noted, charts of historical data in this publication represent seasonally adjusted figures which have been averaged according to the MCD of each series.

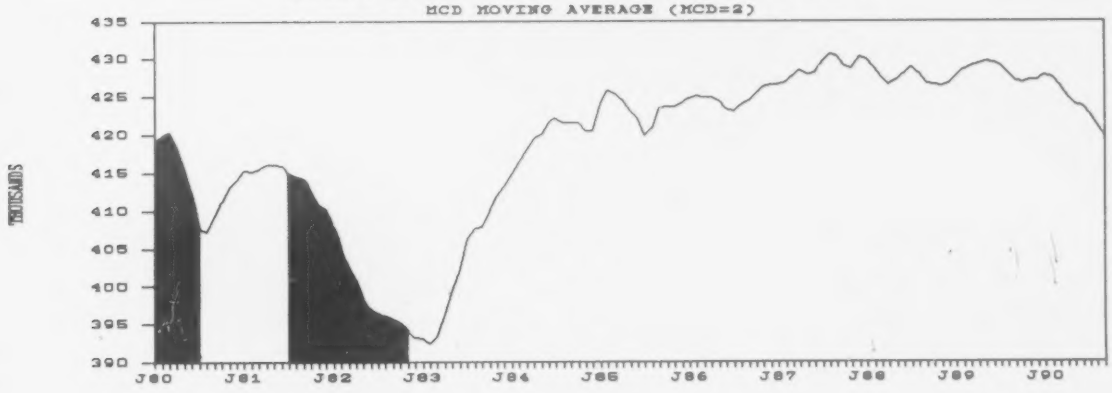
DATA SOURCES

Nonagricultural Wage and Salary Employment.....Virginia Employment Commission (VEC)
Manufacturing Employment.....VEC
Total Unemployment Rate.....VEC
Average Weekly Initial Claims.....VEC
Insured Unemployment Rate.....VEC
Unemployment Insurance Final Payments.....VEC
Average Manhours.....VEC
Average Hourly Earnings.....VEC
Average Weekly Earnings.....VEC
Average Workweek.....VEC
Average Hourly Earnings/CPI.....VEC
Average Weekly Earnings/CPI.....VEC
New Business Incorporations.....Virginia State Corporation Commission
Valuation of Building Permits - 18 Cities.....Local Building Inspectors
New Vehicle Registrations.....Virginia State Department of Motor Vehicles
Electrical Power Sales.....Virginia Power, Appalachian Power Co., Delmarva Electric Co., Tennessee Power Company
Taxable Retail Sales.....Virginia State Department of Taxation
Taxable Retail Sales/CPI.....Virginia State Department of Taxation

NONAG WAGE & SALARY EMPLOYMENT



MANUFACTURING EMPLOYMENT



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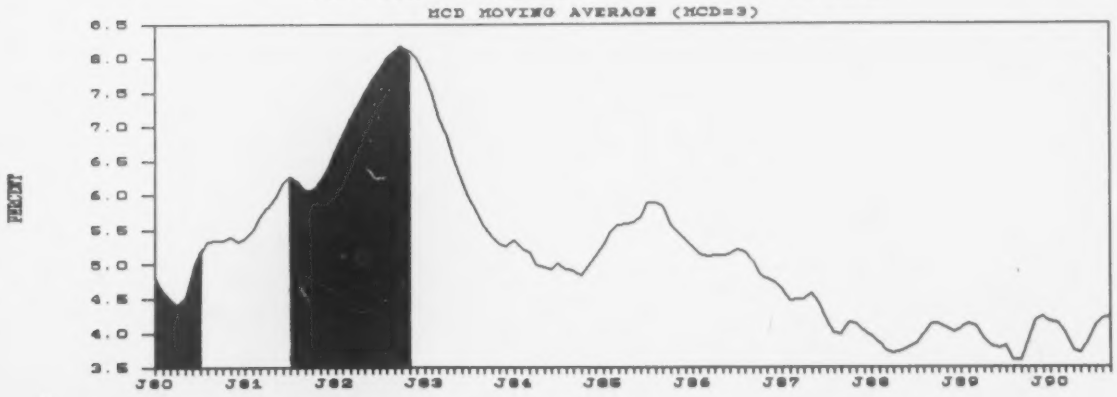

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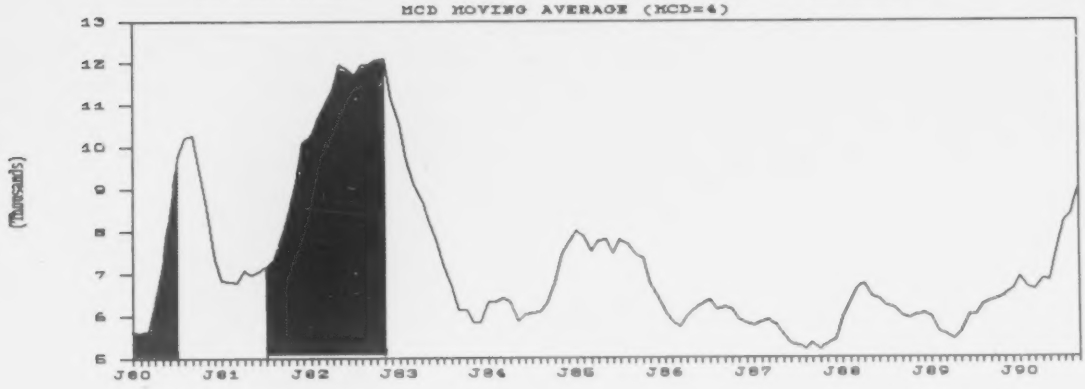

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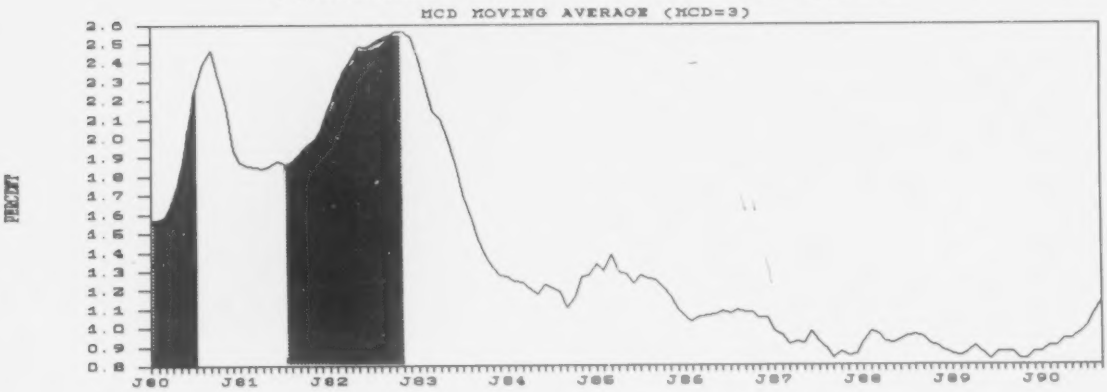

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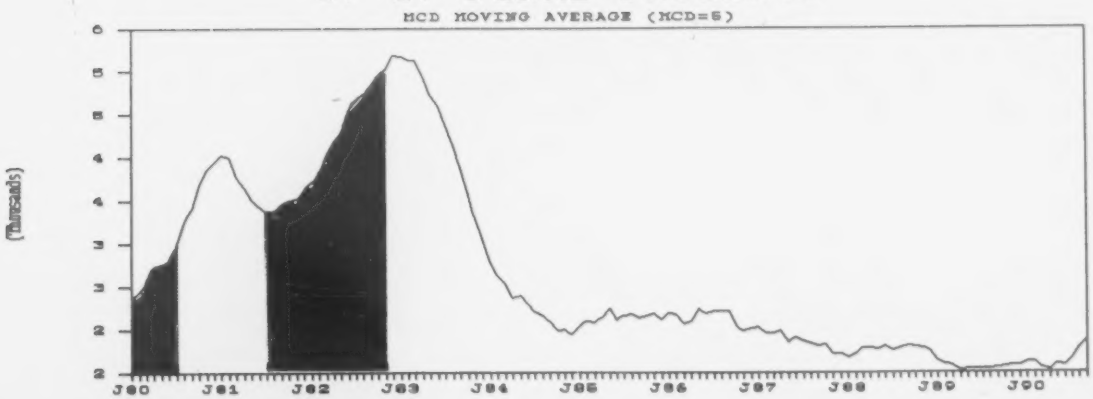

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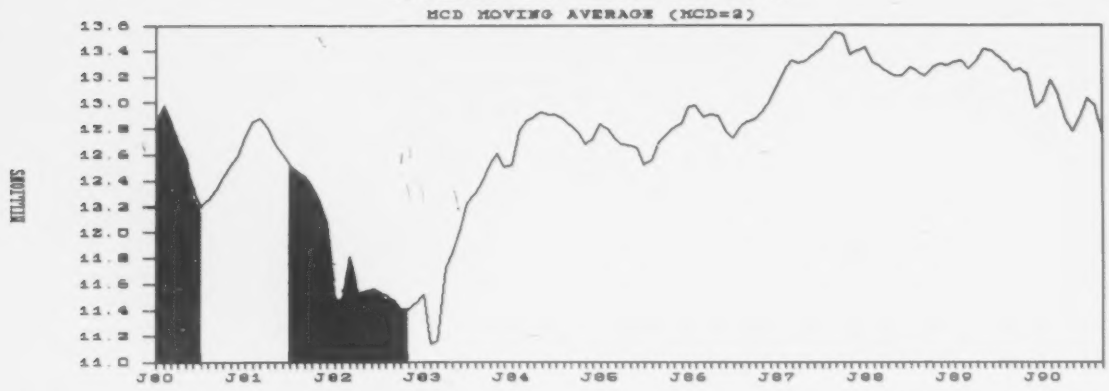

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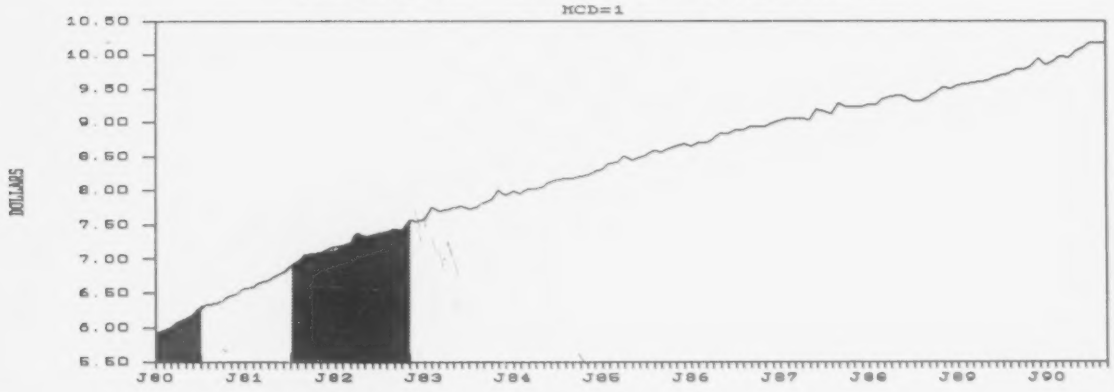

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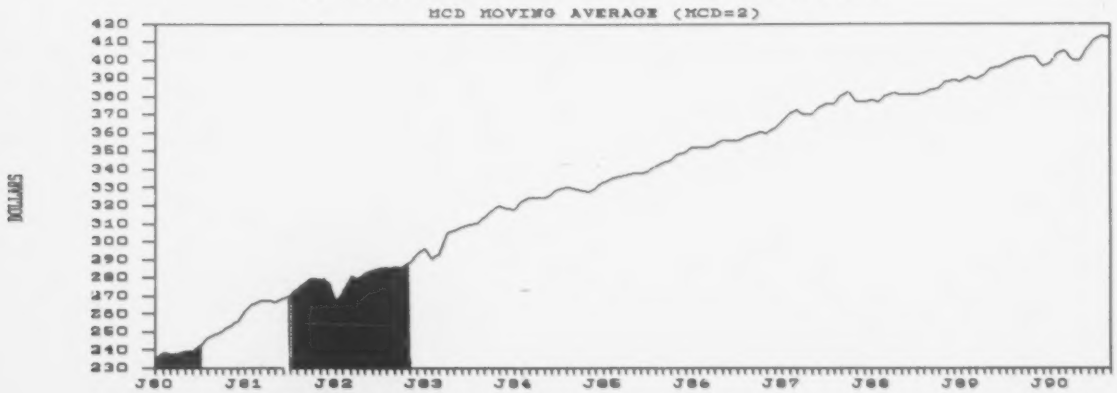

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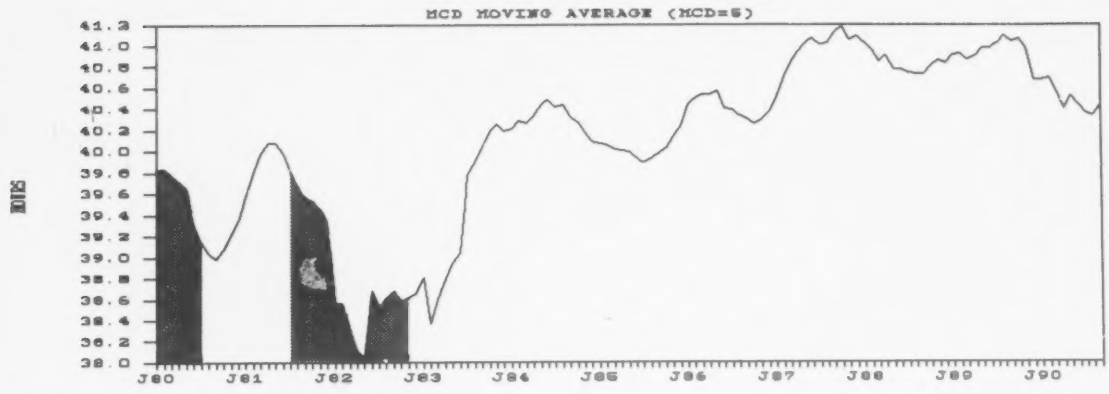

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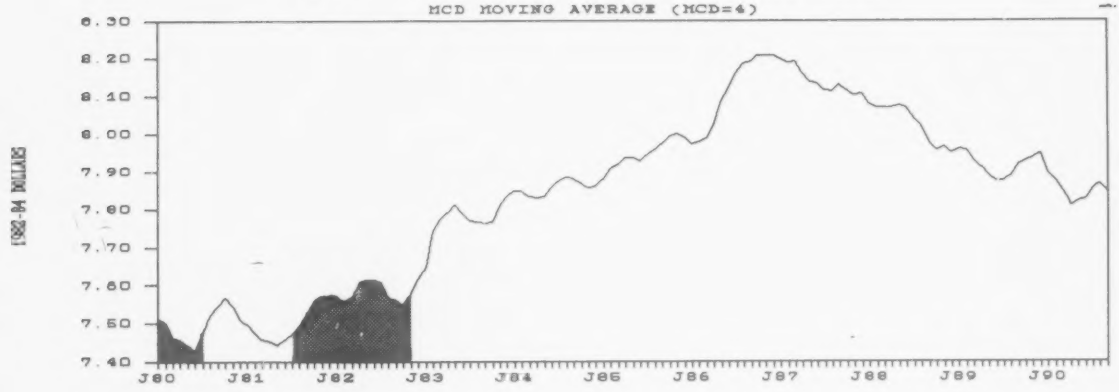

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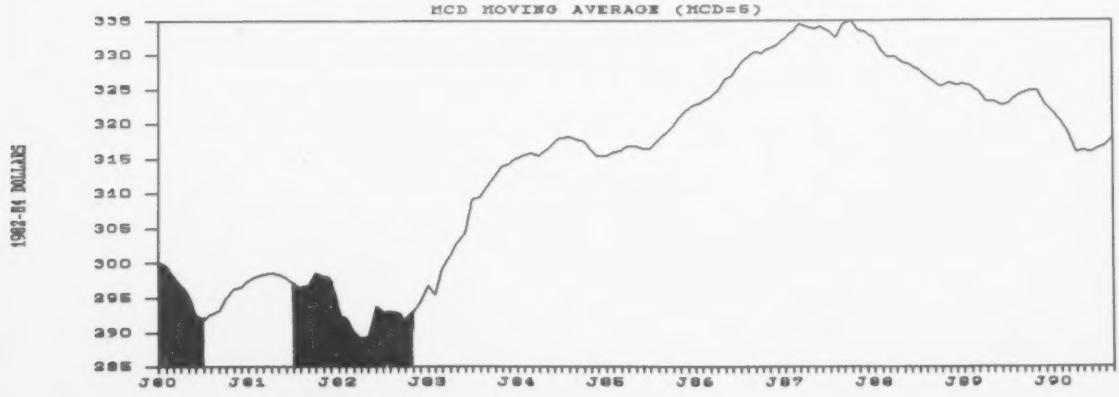

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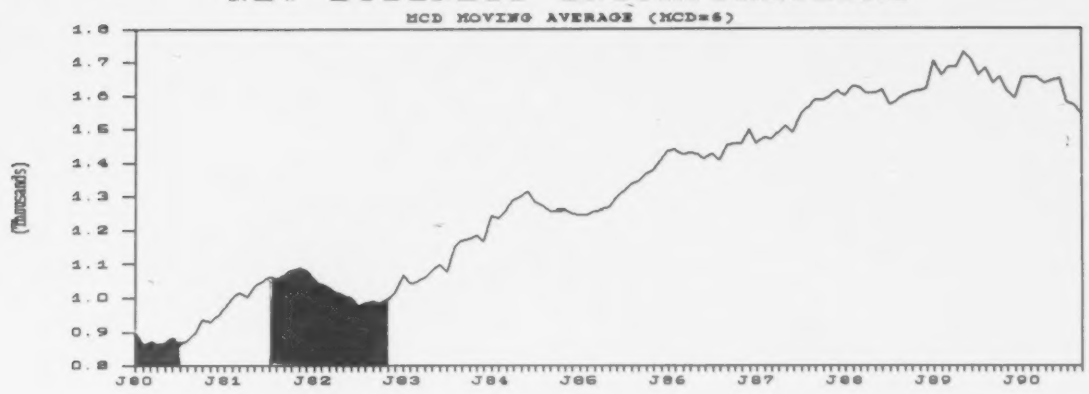

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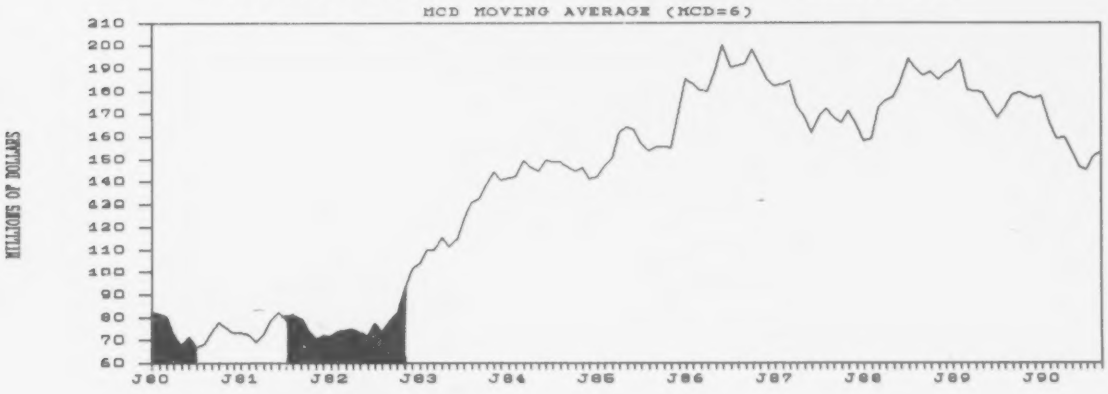
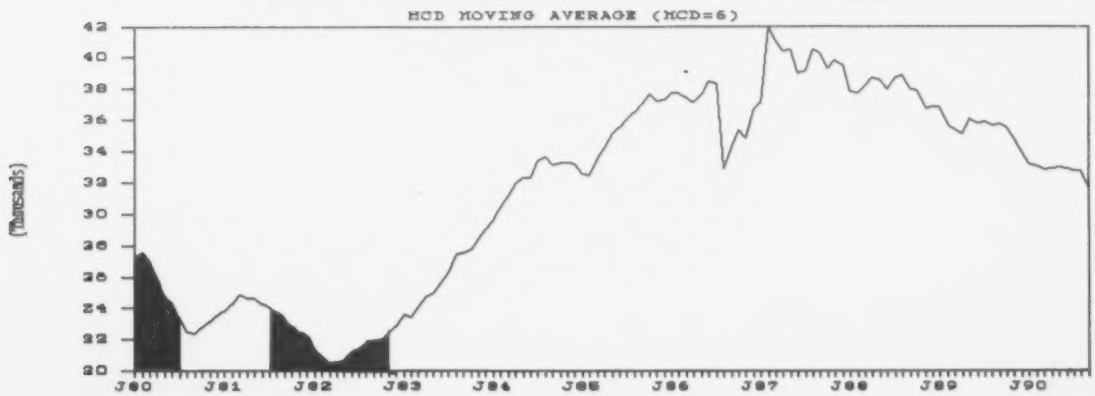


NEW VEHICLE REGISTRATIONS



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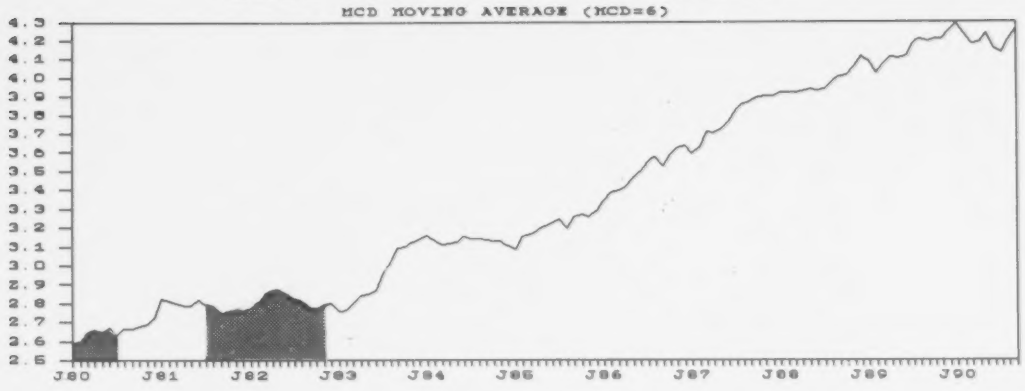
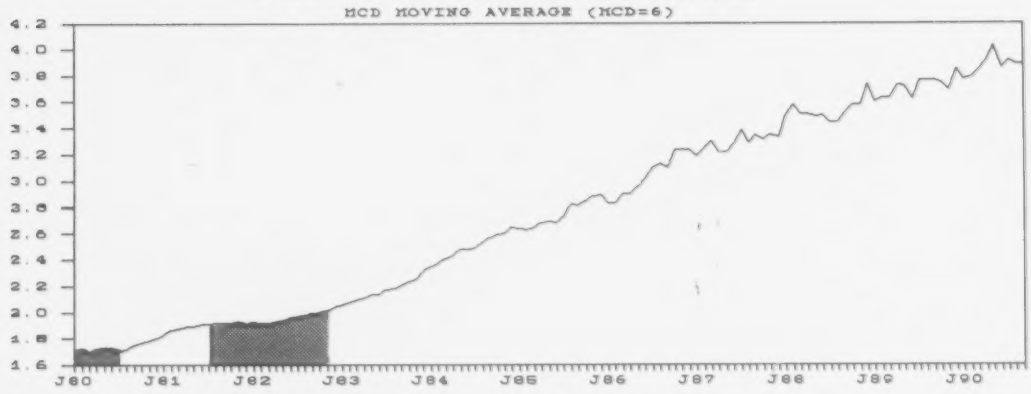


TAXABLE RETAIL SALES



TAXABLE RETAIL SALES/CPI

Virginia Employment Commission
Economic Information Services Division
Post Office Box 1358
Richmond, Virginia 23211-1358

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Virginia Employment Commission

ECONOMIC INDICATORS

4th Quarter 1990 Data Volume 22 No. 4

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● NEW VEHICLE REGISTRATIONS
Y EARNINGS ● BUILDING PERMITS
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Virginia Employment Commission

FOREWORD

This publication is designed to depict the movement of Virginia's key economic indicators in graphic and tabular form with accompanying narrative analysis.

We welcome any comments, suggestions, or questions concerning Virginia Economic Indicators. Please address your comments to: Dolores A. Esser, Director, Economic Information Services Division, Virginia Employment Commission, P. O. Box 1358, Richmond, Virginia 23211. For additional information or explanation of the contents of this document, you may contact the Economic/Operations Research section at (804) 786-5669/3177.

Our Telephone Device for the Deaf (TDD) number is (804) 371-8050.

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ECONOMIC OUTLOOK - U.S.

VOL. 22, NO. 4 FOURTH QUARTER DATA

Forecast Update

The downturn in the U.S. economy finally arrived in Fourth Quarter 1990. Gross National Product (GNP) growth for 1990's final quarter turned negative by 1.6 percent. Average GNP growth for 1990 was only 1.0 percent.

- o The economy had been losing steam since mid-1989.

- o The eruption of the Persian Gulf crisis in August 1990, the United Nations' sending forces to the Middle East, and spiralling inflation brought on by the sharp rise in oil prices in Third Quarter 1990 signaled an end to the longest recovery in the post-war period--a recovery that had begun eight years before in November 1982.

- o After Saddam Hussein, President of Iraq, had for 5 1/2 months ignored the United Nations' demand that he end his occupation of Kuwait, United Nations' forces began an air-attack on Iraq on January 16, 1991.

- o With the start of hostilities in the Persian Gulf, the mood of the country here at home was apprehensive; and consumer confidence plummeted to its lowest level in years. Both businesses and the general public seemed to postpone all but the most essential spending plans until it could be determined which way the war was going.

Fortunately, the war was successfully ended in six weeks and with less than a week of ground combat. The United Nations' forces scored a decisive military victory!

- o Iraqi forces surrendered and have withdrawn from Kuwait.

- o Iraq was largely defeated by the high-tech U.S. military, and allied casualties and losses of equipment were extremely small.

- o Prisoners of war have been exchanged on both sides, and U.S. troops are arriving home.

- o Contrary to most expectations, the price of oil started to fall when the shooting started; and as of late March, domestic gasoline prices are now back to post-Persian Gulf crisis levels.

The mood of the country is euphoric over such a speedy and successful conclusion to the war. Consumer attitudes have improved markedly, and expectations about the future have also shot way up. While there will be at least an eight to ten-week lag before this renewed optimism shows up in the statistics, the general mood of the country seems to be "to get back to business as usual just as soon as possible."

- o Defense spending for the war and the renewed burst of confidence now make it almost too close to call yet whether or not we actually have had a recession.

  - By definition, a recession is two consecutive quarters of negative GNP growth.

- Fourth Quarter 1990 definitely experienced negative GNP growth, but First Quarter 1991 could end up with either zero growth or very slightly positive.

- We just won't know until the final figures are in.

o Evidence seems to point to a recovery commencing in Second Quarter 1991.

- Lower interest rates, renewed confidence, seller incentives, pent-up demand, and the return of the troops should bring consumers back into the market for both cars and houses. Very good buys currently exist in both big ticket commodities. A sales pickup will also be good news for suppliers to these two key industries, many of whom are located in Virginia.

- The Consumer Price Index (CPI) may even actually move down for a couple of months this spring because of the recent plummet in fuel prices.

- Inventories, which were not really excessive last fall, have now shrunken to almost "bare-bones" levels.

- The U.S. is likely to be a major recipient of the money spent to rebuild war-torn Kuwait.

o Slightly on the downside.

- The speedy end of the Persian Gulf conflict will now mean defense spending will not be providing as much of a boost to the economy for the remainder of 1991 as was originally supposed.

- The sudden burst of confidence the economy seems to be enjoying will probably cause the Federal Reserve to begin raising interest rates by summer.

- While the fortunes of the U.S. economy now seem to be turning up, two major U.S. trading partners, Germany and Japan, seem to be weakening. The assimilation of East Germany is proving more difficult and costly than previously expected, and Japan seems to be starting into a "growth" recession. Problems with these two major buyers of U.S. goods should push the value of the U.S. dollar higher and slightly reduce U.S. exports.

o From the above, it now looks like real GNP growth will average 1.2 to 1.3 percent in 1991, stronger than the 0.4 percent growth forecast last fall in our Economic Assumptions.

o The CPI should average about 4.8 percent for 1991--much better than the 7.0 percent price rise recorded in Fourth Quarter 1990. As the year wears on, moderating fuel costs will be partially offset by the continued rise in the price of health and other services.

o Unemployment, being a lagging economic indicator, will peak at about 6.9 percent nationally in Second Quarter 1991. Employment will not better its Third Quarter 1990 peak until very late in 1991 or early 1992.

William F. Mezger
Economist

HIGHLIGHTS
VIRGINIA ECONOMIC INDICATORS
FOURTH QUARTER 1990

- Even with the general slowdown in the economy, two of the production worker wage series still managed to set records in Fourth Quarter 1990.

  - The average hourly factory production wage reached a new high of $10.19 in October; then after dropping $.02 in November, went on to register another record of $10.27 in December.

  - The manufacturing average weekly production paycheck climbed to $410.91 in November, then finished the year at another record of $414.04 in December.

- The Consumer Price Index for All Urban Consumers (CPI-U) averaged 133.7 (1982-4 = 100) in Fourth Quarter 1990.

- The Consumer Price Index for All Urban Consumers (CPI-U) registered an annual gain of 5.4 percent in 1990 to average 130.7 (1982-4 = 100). This gain compared to a 4.8 percent rise in the average CPI-U in 1989.

- According to the Bureau of Labor Statistics (BLS) of the U. S. Department of Labor, productivity decreased at a 0.5 percent annual rate during Fourth Quarter 1990 in the business sector, as output fell 2.5 percent, and the hours of all persons engaged in the sector declined 2.1 percent (seasonally adjusted annual rates). The decline in productivity was the second in 1990, and the decline in output and hours was the greatest in eight years. During Third Quarter 1990, business productivity had increased 0.9 percent, as output grew 0.5 percent and hours were reduced 0.4 percent.

- BLS also reported business productivity declined 0.6 percent when the annual average for 1989 is compared with the average for 1990. This was the second consecutive annual drop in productivity. Output rose only 0.3 percent in 1990, and the hours of all persons engaged in the sector increased 0.9 percent. The increases in productivity, output, and hours were all smaller than the gains in 1989.

- According to the Energy Information Administration of the U. S. Department of Energy, coal production in Virginia in 1990 at a record 50,013,000 short tons was 16.3 percent above Virginia's 1989 coal production of 43,006,000 short tons. Virginia's 16.3 percent 1990 annual coal tonnage increase was the best percentage gain recorded by any state east of the Mississippi last year.

VIRGINIA INDICATORS
Fourth Quarter Data

The economic slowdown was being felt by the fifteen Virginia economic indicator series in 1990's final quarter.

The nonfarm employment series which had registered a record expansion throughout the last half of the 1980s has largely been maintaining a status-quo since the spring of 1990. Contrary to what many people expected in the current slowdown, services--especially personal, health, and business services--has continued to expand throughout 1990. This gain, however, has largely been offset by losses in manufacturing and construction. Northern Virginia construction levels have plummeted over 20 percent.

Sizeable, but brief, mass factory furloughs for inventory adjustment sent shock-waves through the unemployment-related indicators starting in October and pushed some of these items to levels not seen in a number of years. The reduced hours of work tended to have a depressing overall effect on earnings, but the workweek at a 40.1 hours' average for the quarter was still just above the 40-hour norm. The two earnings series were also still strong enough to set four records. Average hourly wages hit new highs of $10.19 in October and $10.27 in December, and average weekly earnings reached record levels of $410.91 in November and $414.04 in December.

The approximately 40,000 military personnel sent from Tidewater Virginia to the Persian Gulf had a negative impact on both car sales and sales tax receipts. The mild weather hurt power sales, but kept building activities from falling even lower.

In Fourth Quarter 1990, October was the worst month with nine series down, two unchanged, and only four up. November was better with six series up, four unchanged, and five down. December was stronger still with eight series up, three unchanged, and four down.

The six-month moving average of rising indicators (page 18) serves to illustrate the quarter's performance. The moving average enhances analysis because it smoothes out much of the irregularity present in many of the individual series.

Softening Economy Affects Series in Fourth Quarter, but Record Wage Levels Still Reached

With revisions to First Quarter 1990 benchmarks, the two employment series exhibited little change again in Fourth Quarter 1990. In fact, these two series peaked out in First Quarter 1990 and have shown relatively little movement since. Nonagricultural wage and salary employment did not register enough movement (less than ±0.5 percent) to show any change at all in any of the three months of 1990's final quarter. The job level for December stood at 2,880,500. Factory employment

changed just enough to register slightly negative in October and December and no change in November. Factory forces totaled 417,600 at year's end, 3.1 percent below December 1989.

An outbreak of short-term mass furloughs caused the four unemployment indicators to be all negative in October before being roughly split between positive and negative in November and December. The total unemployment rate moved up from 4.4 percent in both August and September to 4.8 percent by December, the highest level since March 1987. The wave of mass furloughs in manufacturing and cutbacks in construction pushed initial unemployment claims to 14,498 in October, the highest level recorded in the past two decades. Initial unemployment claims then fell back to 8,478 by December, the lowest level since last May. Insured unemployment rose to 1.4 percent in October, the highest level since First Quarter 1985, before settling to 1.2 percent in both November and December. Unemployment final payments inched up to 2,244 by November, the highest level since Second Quarter 1986, then dropped back to 2,137 by December.

Brief periods of downtime for inventory adjustment in manufacturing caused the production worker series to be basically negative in October, but the four series turned positive for November and December. Average manhours worked fell to 12,475.1 thousand in October, a five-year low, before gaining back to 12,662.1 thousand by December. The workweek dipped below 40.0 hours to 39.9 hours in October for the second time in 1990. (April had been 39.8 hours). The two wage series remained the strongest of all the indicators this quarter. The average hourly factory wage moved up to a record $10.19 in October, was off $.02 in November, then set another record of $10.27 in December. Average weekly earnings fell $.04 to $407.61 in October because of the reduced hours, but then moved up to record new highs of $410.91 in November and $414.04 in December.

The five business series were slightly positive in October and December, but turned mostly negative for November. New business incorporations rose from 1,448 in September to 1,542 in October, fell back to the September level in November, then increased to 1,484 in December. The valuations of building permits issued increased by $8.0 million to $148.8 million in October, fell to $115.2 million in November (the lowest level since June 1985), then rose slightly to $117.9 million in December. New vehicle registrations increased 14.7 percent from September's low level of 27,924 to 32,041 in October, and then were up just slightly to 32,391 in November. These numbers reflected the clean-up of 1990 models. December new car sales plummeted 18.3 percent to 26,457, the lowest monthly figure since 1983.

Electric power sales decreased in October, were slightly higher in November, then fell to 4,017.7 million kilowatt hours in December, the lowest level in almost two years. Electric power sales reflected the much milder weather this year with December power sales being 11.8 percent below the bitterly cold December of 1989. Taxable retail sales were down in October and November and revived only slightly to $3,804.3 million in December. Merchants generally experienced a lack-luster holiday selling season this year.

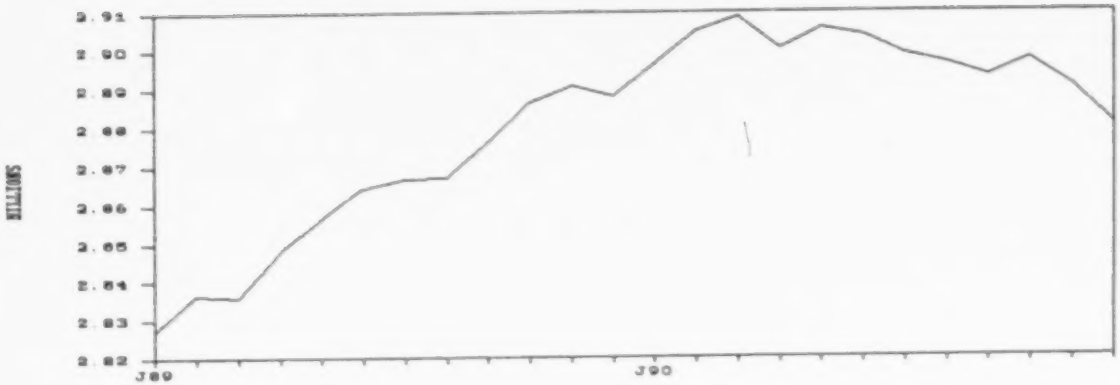
William F. Mezger
Economist

EMPLOYMENT INDICATORS
JANUARY 1989 TO DECEMBER 1990

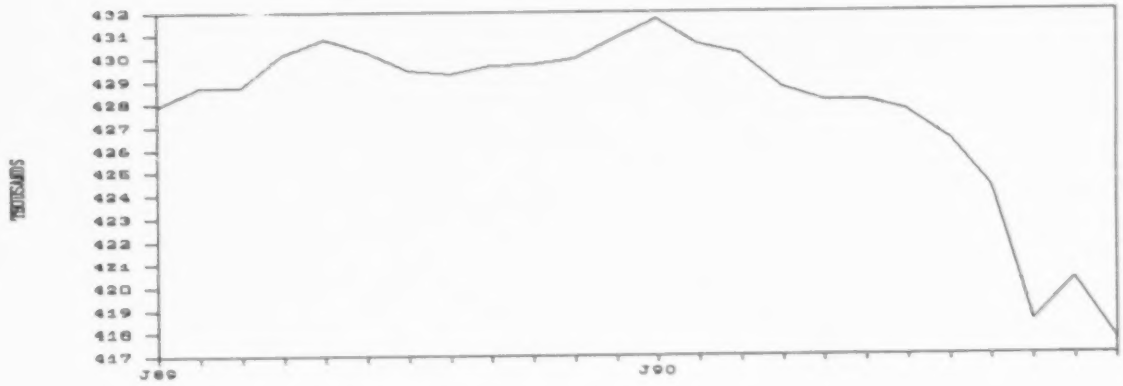
	Nonagricultural Wage and Salary Employment* (Thousands)		Manufacturing Employment* (Thousands)		Total Unemployment Rate* (Percent)	
1989	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	2,778.9	2,827.0	424.8	427.9	4.5	4.1
February	2,789.5	2,836.5	426.1	428.7	4.6	4.3
March	2,808.9	2,835.9	426.4	428.7	4.2	4.1
April	2,837.5	2,848.0	428.0	430.2	3.5	3.6
May	2,868.0	2,856.3	429.5	430.8	3.7	3.9
June	2,899.6	2,864.3	431.7	430.2	3.9	3.9
July	2,872.9	2,866.5	429.2	429.4	3.3	3.6
August	2,869.3	2,866.9	430.9	429.3	3.1	3.3
September	2,894.4	2,876.2	432.5	429.6	3.9	3.9
October	2,898.7	2,886.3	432.2	429.7	4.2	4.4
November	2,913.4	2,890.6	432.2	429.9	4.1	4.1
December	2,912.2	2,888.0	431.8	430.9	4.0	3.9
1990						
January	2,846.7	2,896.3	428.6	431.7	4.4	4.0
February	2,858.0	2,905.0	427.9	430.5	4.3	4.0
March	2,881.9	2,908.7	427.8	430.2	4.0	3.9
April	2,889.6	2,900.6	426.5	428.7	3.6	3.7
May	2,917.2	2,905.6	426.9	428.1	4.0	4.2
June	2,939.6	2,903.7	429.7	428.1	4.4	4.4
July	2,905.4	2,899.0	427.5	427.7	4.2	4.6
August	2,898.7	2,896.6	428.0	426.4	4.2	4.4
September	2,911.0	2,893.1	427.0	424.4	4.4	4.4
October	2,908.3	2,897.6	420.7	418.4	4.3	4.5
November	2,911.9	2,890.5	422.2	420.3	4.6	4.6
December	2,903.1	2,880.5	418.3	417.6	4.9	4.8

* These series have been adjusted to First Quarter 1990 benchmarks.

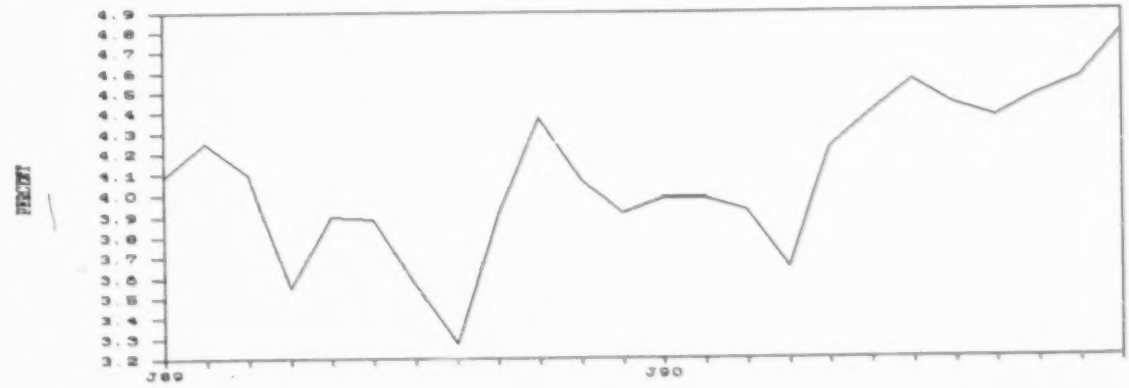
NONAG W & S EMPLOYMENT



MANUFACTURING EMPLOYMENT



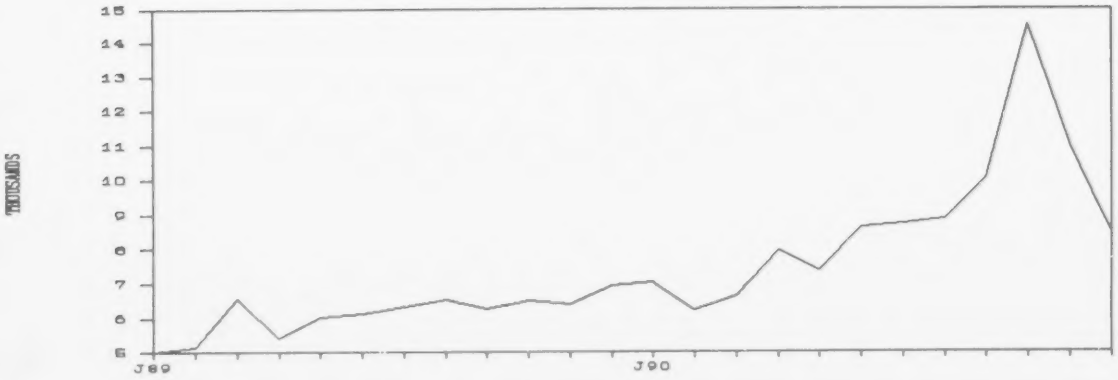
TOTAL UNEMPLOYMENT RATE



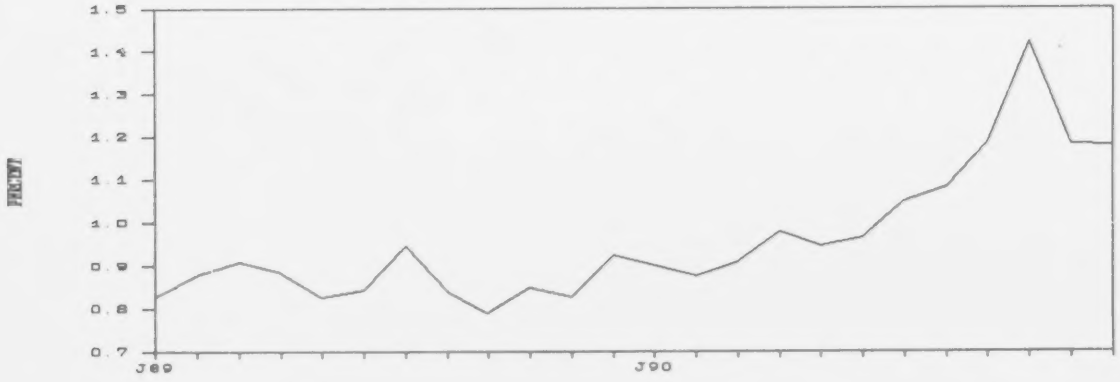
UNEMPLOYMENT INSURANCE INDICATORS
JANUARY 1989 TO DECEMBER 1990

	Average Weekly Initial Claims		Average Weekly Insured Unemployment (Percent)		Unemployment Insurance Final Payments	
1989	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	8,114	5,016	1.2	0.8	1,582	1,568
February	5,283	5,123	1.2	0.9	1,491	1,521
March	5,825	6,566	1.1	0.9	1,935	1,597
April	4,350	5,402	0.9	0.9	1,985	1,529
May	4,112	6,021	0.7	0.8	1,870	1,604
June	5,679	6,135	0.7	0.8	1,652	1,534
July	6,507	6,341	0.9	0.9	1,602	1,493
August	4,309	6,540	0.7	0.8	1,430	1,507
September	3,852	6,260	0.6	0.8	1,278	1,537
October	4,554	6,506	0.6	0.8	1,325	1,646
November	6,379	6,397	0.7	0.8	1,174	1,543
December	14,308	6,930	1.1	0.9	1,243	1,474
1990						
January	11,446	7,050	1.3	0.9	1,789	1,789
February	6,330	6,206	1.2	0.9	1,499	1,519
March	5,887	6,647	1.1	0.9	1,798	1,474
April	6,345	7,947	1.0	1.0	1,965	1,539
May	5,021	7,385	0.8	0.9	2,027	1,736
June	8,007	8,618	0.8	1.0	1,848	1,709
July	8,985	8,724	1.0	1.1	2,045	1,906
August	5,787	8,848	0.9	1.1	1,907	1,996
September	6,118	10,038	0.9	1.2	1,585	1,918
October	10,138	14,498	1.0	1.4	1,793	2,213
November	11,029	10,982	1.0	1.2	1,727	2,244
December	17,611	8,478	1.4	1.2	1,772	2,137

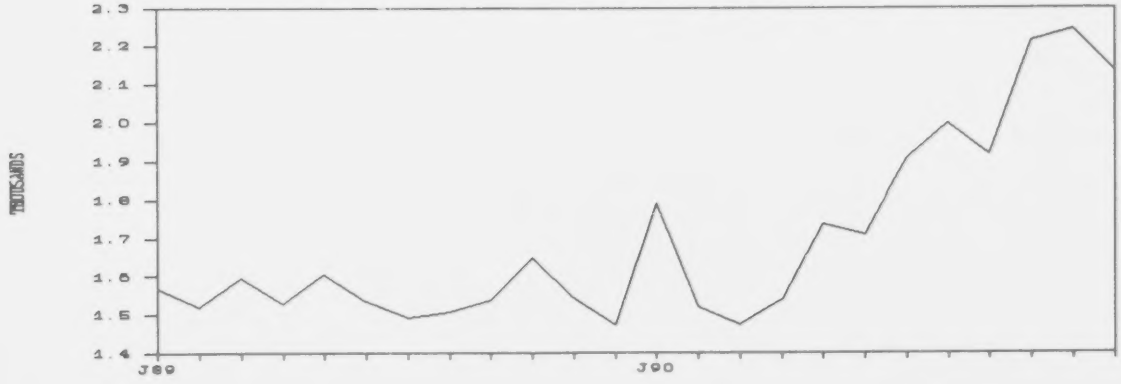
AVG. WEEKLY INITIAL CLAIMS



INSURED UNEMPLOYMENT RATE



U.I. FINAL PAYMENTS

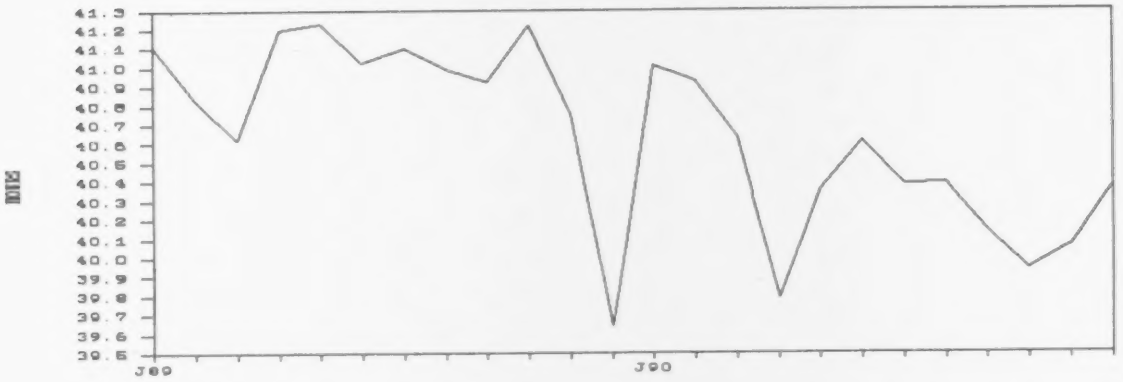


MANUFACTURING PRODUCTION WORKER INDICATORS
JANUARY 1989 TO DECEMBER 1990

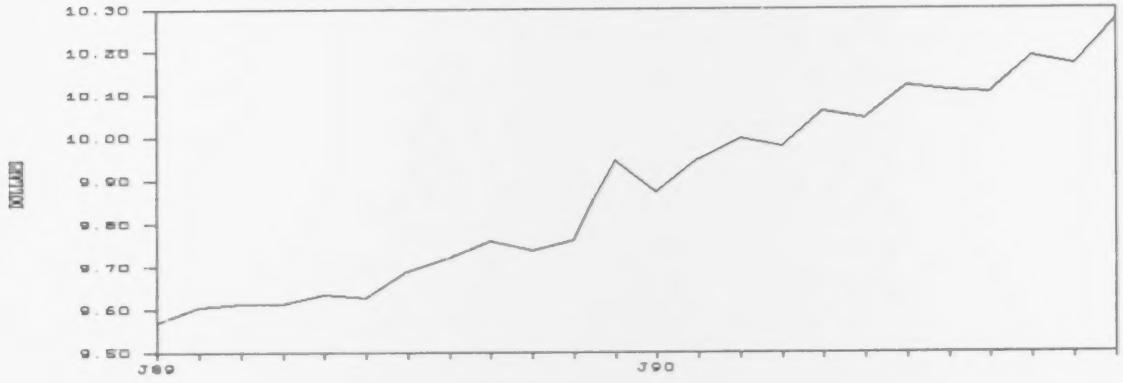
	Average Weekly Hours*		Average Hourly Earnings* (Dollars)		Deflated Average Hourly Earnings* (1982-84 Dollars)	
1989	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	40.8	41.1	9.56	9.57	7.99	7.98
February	40.1	40.8	9.57	9.61	7.96	7.98
March	40.4	40.6	9.59	9.61	7.94	7.93
April	41.0	41.2	9.57	9.62	7.86	7.90
May	41.1	41.2	9.60	9.64	7.84	7.89
June	41.2	41.0	9.64	9.63	7.85	7.85
July	40.8	41.1	9.69	9.69	7.87	7.87
August	40.8	41.0	9.72	9.72	7.89	7.90
September	41.4	40.9	9.80	9.76	7.93	7.92
October	41.4	41.2	9.75	9.74	7.85	7.86
November	41.4	40.8	9.83	9.76	7.90	7.85
December	40.2	39.6	9.99	9.95	8.02	7.96
1990						
January	40.7	41.0	9.86	9.88	7.83	7.83
February	40.2	40.9	9.90	9.95	7.83	7.85
March	40.4	40.6	9.97	10.00	7.84	7.89
April	39.6	39.8	9.93	9.98	7.80	7.85
May	40.2	40.4	10.02	10.06	7.81	7.86
June	40.8	40.6	10.06	10.04	7.82	7.82
July	40.1	40.4	10.12	10.12	7.86	7.86
August	40.2	40.4	10.11	10.11	7.78	7.78
September	40.6	40.1	10.14	10.11	7.73	7.72
October	40.1	39.9	10.20	10.19	7.73	7.75
November	40.7	40.1	10.24	10.17	7.75	7.70
December	40.9	40.4	10.31	10.27	7.80	7.75

* These series have been adjusted to First Quarter 1990 benchmarks.

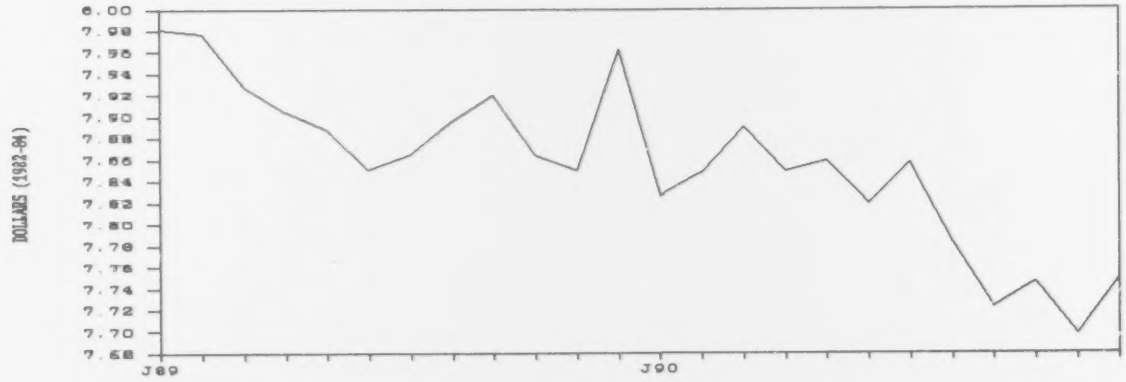
AVERAGE WEEKLY HOURS



AVERAGE HOURLY EARNINGS



AVG. HOURLY EARNINGS/CPI

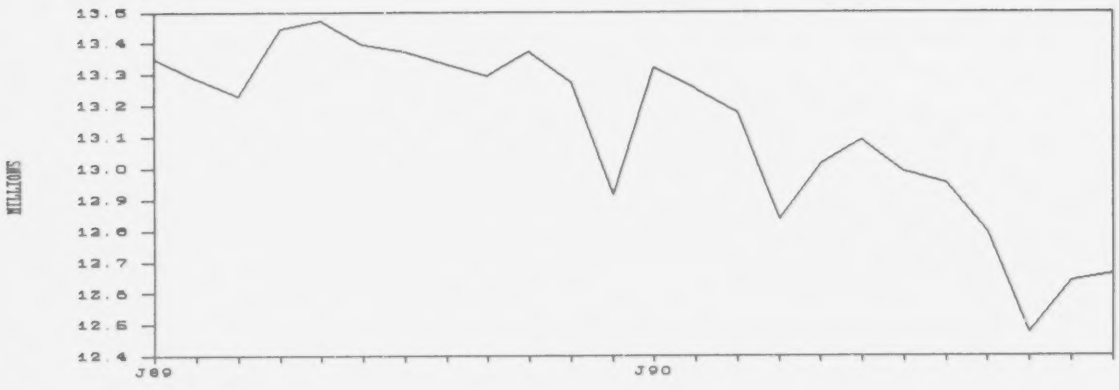


PRODUCTION WORKER INDICATORS (CONTINUED)
JANUARY 1989 TO DECEMBER 1990

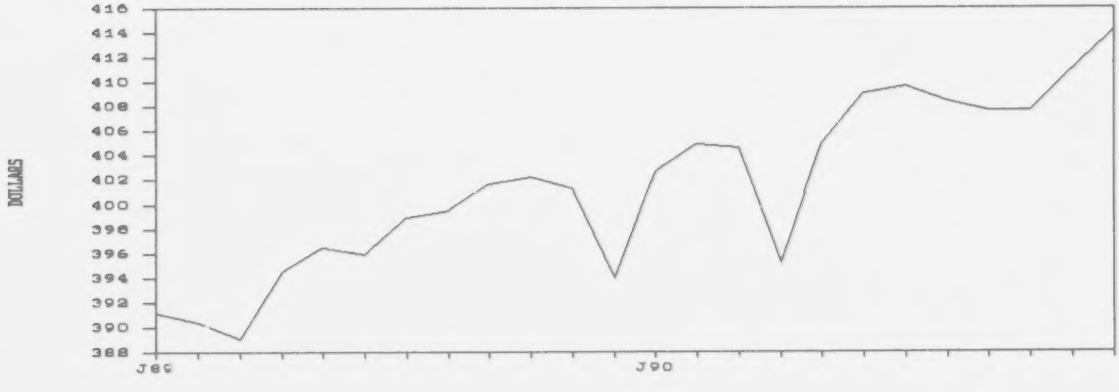
	Average Manhours* (Thousands)		Average Weekly Earnings* (Dollars)		Deflated Average Weekly Earnings* (1982-84 Dollars)	
1989	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	13,182.5	13,349.5	390.05	391.15	325.86	326.78
February	12,996.4	13,285.3	383.76	390.36	319.27	323.75
March	13,077.5	13,230.1	387.44	389.04	320.73	321.46
April	13,320.9	13,447.4	392.37	394.48	322.14	323.14
May	13,382.2	13,470.2	394.56	396.46	322.09	324.19
June	13,493.0	13,392.4	397.17	395.87	323.43	322.69
July	13,243.7	13,370.6	395.35	398.93	320.90	324.62
August	13,309.0	13,329.9	396.58	399.50	321.90	324.34
September	13,533.7	13,291.9	405.72	401.62	328.25	325.80
October	13,546.1	13,373.6	403.65	402.23	325.00	324.70
November	13,541.9	13,273.8	406.96	401.23	327.14	322.47
December	13,097.1	12,915.3	401.60	393.95	322.31	314.98
1990						
January	13,154.2	13,320.1	401.30	402.63	318.75	319.71
February	12,960.5	13,251.5	397.98	404.83	314.86	319.28
March	13,020.9	13,176.6	402.79	404.53	316.91	317.82
April	12,715.6	12,835.2	393.23	395.25	308.90	309.99
May	12,920.3	13,009.3	402.80	404.94	313.95	316.17
June	13,190.6	13,088.0	410.45	408.99	318.92	318.07
July	12,872.1	12,988.3	405.81	409.57	315.32	319.13
August	12,924.3	12,949.2	405.42	408.40	312.10	314.41
September	13,020.4	12,794.6	411.68	407.65	314.02	311.72
October	12,635.5	12,475.1	409.02	407.61	310.10	309.86
November	12,889.7	12,639.4	416.77	410.91	315.26	310.71
December	12,830.3	12,662.1	421.68	414.04	318.97	311.90

* These series have been adjusted to First Quarter 1990 benchmarks.

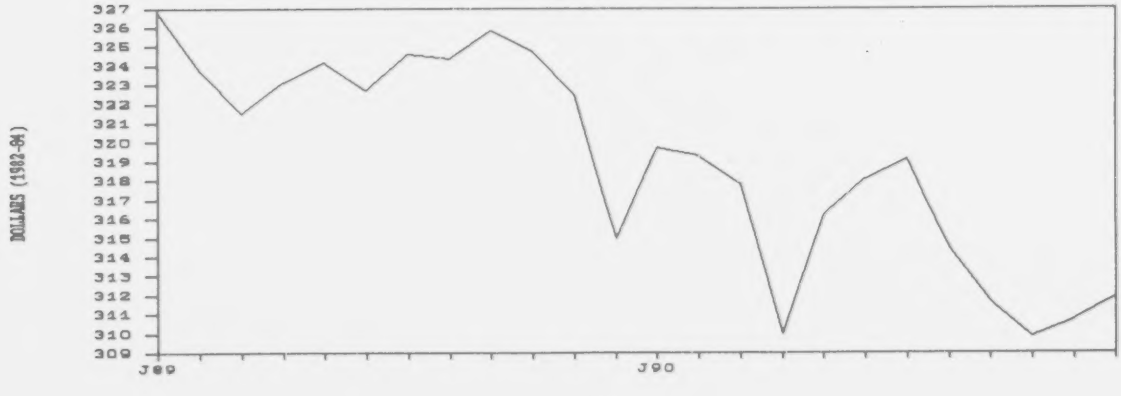
AVERAGE MANHOURS



AVERAGE WEEKLY EARNINGS



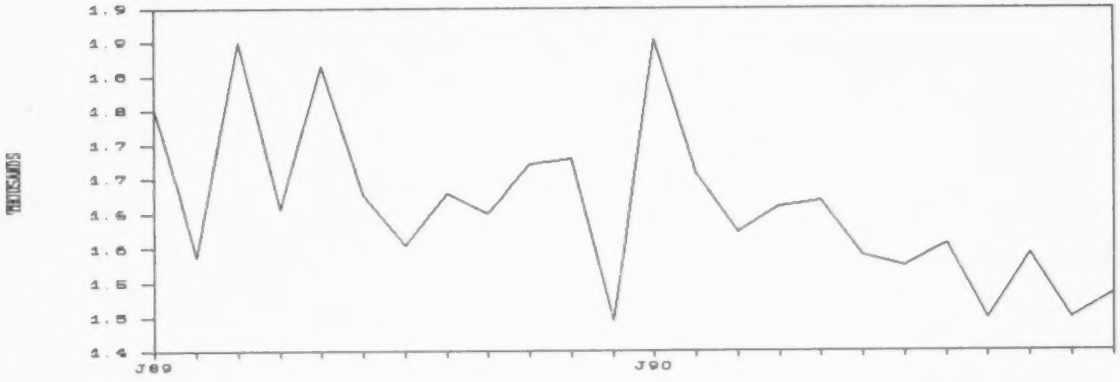
AVG. WEEKLY EARNINGS/CPI



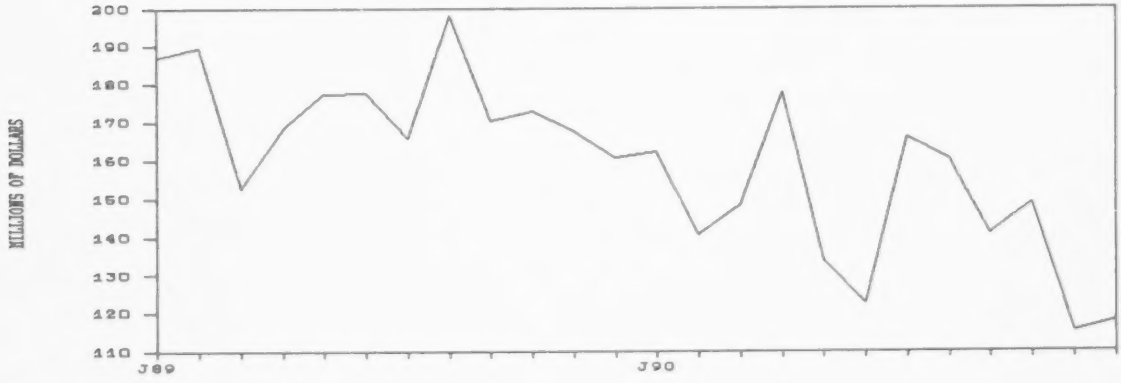
BUSINESS INDICATORS
JANUARY 1989 TO DECEMBER 1990

	New Business Incorporations		Valuation of Building Permits ($ Millions)		New Vehicle Registrations	
1989	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	1,639	1,754	162.6	187.2	36,521	36,536
February	1,559	1,538	142.6	189.6	31,065	35,622
March	2,142	1,850	149.6	152.8	35,217	34,148
April	1,631	1,607	155.7	168.3	37,980	35,571
May	1,947	1,815	182.7	177.4	40,490	36,544
June	1,665	1,628	237.6	177.6	40,902	36,075
July	1,471	1,554	193.4	165.6	40,820	36,632
August	1,677	1,628	226.8	198.1	34,503	33,606
September	1,465	1,599	175.4	170.3	37,891	35,460
October	1,644	1,670	175.5	172.8	36,069	33,851
November	1,476	1,678	148.7	167.7	26,635	33,196
December	1,481	1,445	138.3	160.5	22,148	31,234
1990						
January	1,732	1,854	139.7	162.0	32,551	32,690
February	1,684	1,656	107.2	140.4	29,031	33,153
March	1,827	1,572	144.0	148.1	34,317	33,224
April	1,618	1,611	163.0	177.7	36,359	34,063
May	1,751	1,618	136.2	133.9	36,933	33,210
June	1,578	1,539	162.3	122.6	34,670	30,688
July	1,426	1,524	197.8	166.1	34,817	31,203
August	1,618	1,556	186.7	160.1	33,428	32,464
September	1,319	1,448	147.8	140.8	29,640	27,924
October	1,512	1,542	149.7	148.8	34,159	32,041
November	1,273	1,448	100.3	115.2	26,012	32,391
December	1,524	1,484	100.9	117.9	18,695	26,457

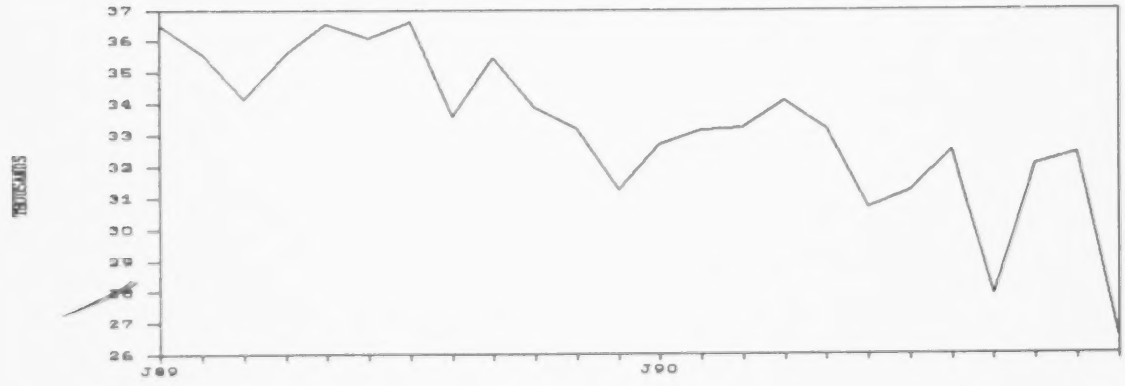
NEW BUSINESS INCORPORATIONS



VALUATION OF BUILDING PERMITS



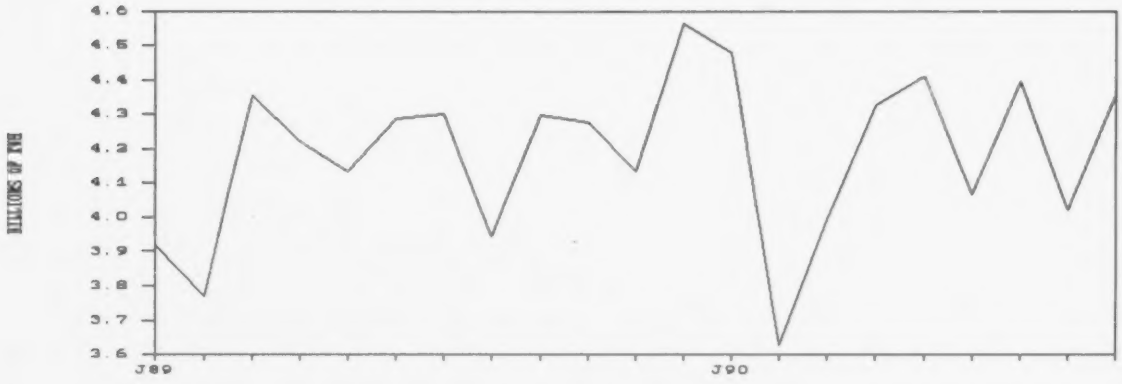
NEW VEHICLE REGISTRATIONS



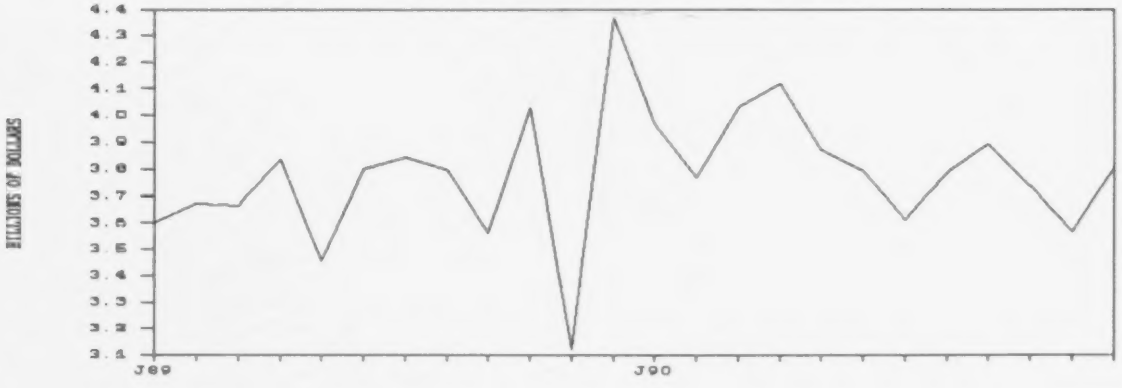
BUSINESS INDICATORS (CONTINUED)
JANUARY 1989 TO DECEMBER 1990

	Electrical Power Sales (Millions of KWH)		Taxable Retail Sales (Millions of Dollars)	
1989	Unadjusted	Adjusted	Unadjusted	Adjusted
January	4,602.7	3,997.1	2,795.4	3,604.6
February	4,243.0	3,807.3	3,727.5	3,672.2
March	4,486.8	4,400.9	3,329.1	3,664.7
April	3,765.7	4,182.7	3,756.6	3,835.3
May	3,431.2	4,123.4	3,515.0	3,455.8
June	4,099.9	4,300.6	3,974.4	3,800.2
July	4,650.2	4,186.9	4,032.0	3,844.0
August	4,523.0	4,026.6	3,717.4	3,792.9
September	4,414.2	4,212.2	3,682.9	3,563.3
October	3,702.3	4,236.0	3,949.2	4,029.5
November	3,562.2	4,103.4	3,053.8	3,123.6
December	4,587.3	4,557.3	5,432.0	4,369.2
1990				
January	5,261.2	4,572.5	3,087.1	3,968.1
February	4,085.0	3,668.0	3,825.9	3,768.1
March	4,114.0	4,045.4	3,633.6	4,027.4
April	3,856.4	4,271.3	4,054.1	4,116.4
May	3,657.5	4,389.9	3,887.3	3,867.6
June	3,890.4	4,090.1	3,959.7	3,790.2
July	4,754.4	4,277.3	3,822.7	3,612.5
August	4,614.0	4,116.4	3,702.6	3,785.5
September	4,478.6	4,264.7	4,031.6	3,894.0
October	3,667.1	4,204.1	3,661.3	3,736.7
November	3,667.2	4,220.8	3,445.8	3,567.5
December	4,046.2	4,017.7	4,779.3	3,804.3

ELECTRICAL POWER SALES



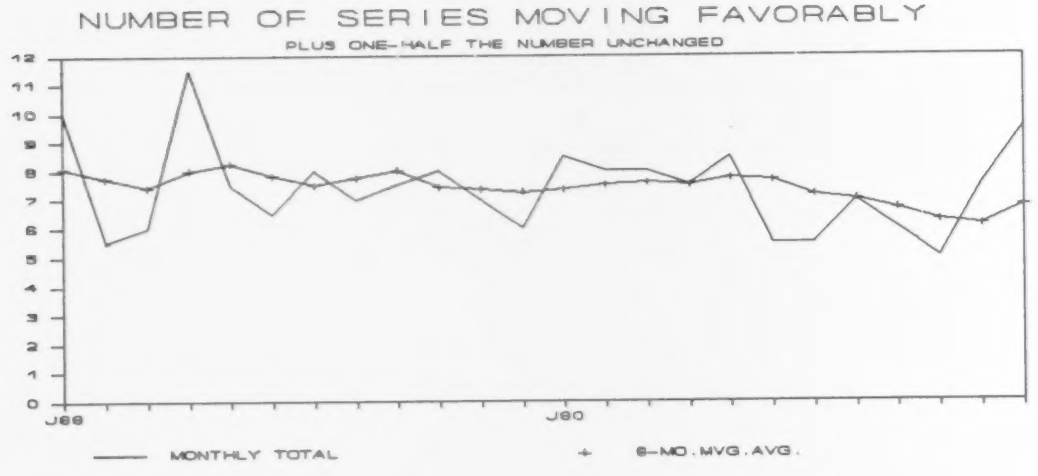
TAXABLE RETAIL SALES



DATA SUMMARY DECEMBER 1990 (SEASONALLY ADJUSTED DATA)	Dec. 1990	Nov. 1990	Dec. 1989	Percent & Direction** of Change Nov. '90- Dec.	Dec. '89- Dec. '90
EMPLOYMENT					
*Nonag Wage & Salary Emp (000)	2,880.5	2,890.5	2,888.0	-0.3 (0)	-0.3 (0)
*Manufacturing Employment (000)	417.6	420.3	430.9	-0.6 (-)	-3.1 (-)
*Total Unemplomet Rate	4.8	4.6	3.9	(-)	(-)
UNEMPLOYMENT INSURANCE					
Average Weekly Initial Claims	8,478	10,982	6,930	-22.8 (+)	22.3 (-)
Insured Unemployment Rate (%)	1.2	1.2	0.9	(0)	(-)
Final Payments	2,137	2,244	1,474	-4.8 (+)	45.0 (-)
MANUFACTURING PRODUCTION WORKERS					
*Average Weekly Hours	40.4	40.1	39.6	0.7 (+)	2.0 (+)
*Average Manhours (000)	12,662	12,639	12,915	0.2 (0)	-2.0 (-)
*Average Hourly Earnings ($)	10.27	10.17	9.95	1.0 (+)	3.2 (+)
*Average Weekly Earnings ($)	414.04	410.91	393.95	0.8 (+)	5.1 (+)
BUSINESS					
New Business Incorporations	1,484	1,448	1,445	2.5 (+)	2.7 (+)
Valuation of Bldg Permits ($M)	117.9	115.2	160.5	2.3 (+)	-26.5 (-)
New Vehicle Registrations	26,457	32,391	31,234	-18.3 (-)	-15.3 (-)
Electrical Pwr Sales (M of KWH)	4,018	4,221	4,557	-4.8 (-)	-11.8 (-)
Taxable Retail Sales ($M)	3804.3	3567.5	4369.2	6.6 (+)	-12.9 (-)

* Revised to First Quarter 1990 benchmarks.
** (+) Favorable, (-) Not Favorable, (0) Change less than 0.5%.

SUMMARY



DATA SUMMARY NOVEMBER 1990 (SEASONALLY ADJUSTED DATA)	Nov. 1990	Oct. 1990	Nov. 1989	Percent & Direction** of Change Oct. '90- Nov.	Nov. '89- '90
EMPLOYMENT					
*Nonag Wage & Salary Emp (000)	2,890.5	2,897.6	2,890.6	-0.2 (0)	-0.0 (0)
*Manufacturing Employment (000)	420.3	418.4	429.9	0.5 (0)	-2.2 (-)
*Total Unemploment Rate	4.6	4.5	4.1	(-)	(-)
UNEMPLOYMENT INSURANCE					
Average Weekly Initial Claims	10,982	14,498	6,397	-24.3 (+)	71.7 (-)
Insured Unemployment Rate (%)	1.2	1.4	0.8	(+)	(-)
Final Payments	2,244	2,213	1,543	1.4 (-)	45.4 (-)
MANUFACTURING PRODUCTION WORKERS					
*Average Weekly Hours	40.1	39.9	40.8	0.5 (+)	-1.7 (-)
*Average Manhours (000)	12,639	12,475	13,274	1.3 (+)	-4.8 (-)
*Average Hourly Earnings ($)	10.17	10.19	9.76	-0.2 (0)	4.2 (+)
*Average Weekly Earnings ($)	410.91	407.61	401.23	0.8 (+)	2.4 (+)
BUSINESS					
New Business Incorporations	1,448	1,542	1,678	-6.1 (-)	-13.7 (-)
Valuation of Bldg Permits ($M)	115.2	148.8	167.7	-22.6 (-)	-31.3 (-)
New Vehicle Registrations	32,391	32,041	33,196	1.1 (+)	-2.4 (-)
Electrical Pwr Sales (M of KWH)	4,221	4,204	4,103	0.4 (0)	2.9 (+)
Taxable Retail Sales ($M)	3567.5	3736.7	3123.6	-4.5 (-)	14.2 (+)

DATA SUMMARY OCTOBER 1990 (SEASONALLY ADJUSTED DATA)	Oct. 1990	Sep. 1989	Oct. 1989	Percent & Direction** of Change Sep. '90- Oct.	Oct. '89- '90
EMPLOYMENT					
*Nonag Wage & Salary Emp (000)	2,897.6	2,893.1	2,886.3	0.2 (0)	0.4 (0)
*Manufacturing Employment (000)	418.4	424.4	429.7	-1.4 (-)	-2.6 (-)
*Total Unemploment Rate	4.5	4.4	4.4	(-)	(-)
UNEMPLOYMENT INSURANCE					
Average Weekly Initial Claims	14,498	10,038	6,506	44.4 (-)	122.8 (-)
Insured Unemployment Rate (%)	1.4	1.2	0.8	(-)	(-)
Final Payments	2,213	1,918	1,646	15.4 (-)	34.4 (-)
MANUFACTURING PRODUCTION WORKERS					
*Average Weekly Hours	39.9	40.1	41.2	-0.5 (-)	-3.2 (-)
*Average Manhours (000)	12,475	12,795	13,374	-2.5 (-)	-6.7 (-)
*Average Hourly Earnings ($)	10.19	10.11	9.74	0.8 (+)	4.6 (+)
*Average Weekly Earnings ($)	407.61	407.65	402.23	-0.0 (0)	1.3 (+)
BUSINESS					
New Business Incorporations	1,542	1,448	1,670	6.5 (+)	-7.7 (-)
Valuation of Bldg Permits ($M)	148.8	140.8	172.8	5.7 (+)	-13.9 (-)
New Vehicle Registrations	32,041	27,924	33,851	14.7 (+)	-5.3 (-)
Electrical Pwr Sales (M of KWH)	4,204	4,265	4,236	-1.4 (-)	-0.8 (-)
Taxable Retail Sales ($M)	3736.7	3894	4029.5	-4.0 (-)	-7.3 (-)

* Revised to First Quarter 1990 benchmarks.
** (+) Favorable, (-) Not Favorable, (0) Change less than 0.5%.

THE VIRGINIA LEADING AND COINCIDENT INDEXES

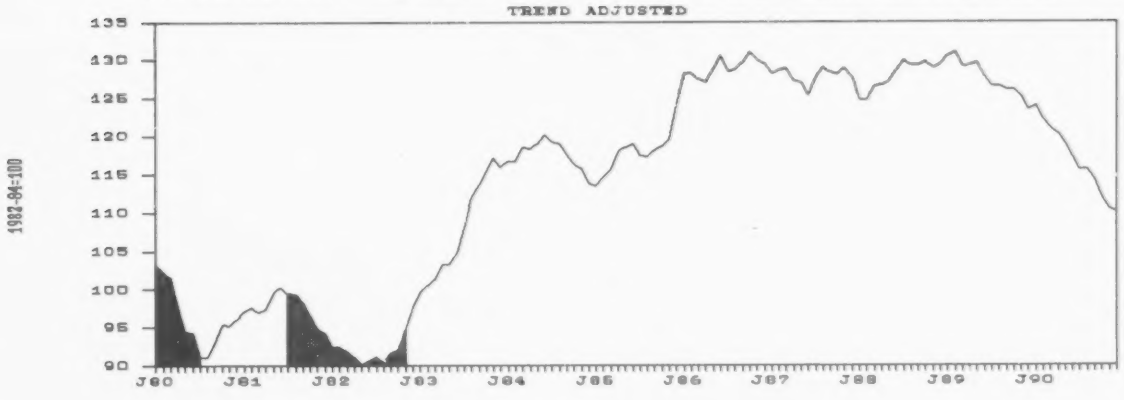
	Leading Index (82-84=100)	Monthly Percent Change	Quarterly Percent Change	Coincident Index (82-84=100)	Monthly Percent Change	Quarterly Percent Change
January,1989	130.59	+0.8		123.60	-0.0	
February	130.99	+0.3	+0.6	123.22	-0.3	+0.1
March	129.18	-1.3		123.17	-0.0	
April	129.34	+0.1		124.50	+1.0	
May	129.57	+0.1	-1.0	125.36	+0.6	+1.5
June	127.76	-1.4		125.83	+0.3	
July	126.49	-0.9		125.72	-0.0	
August	126.55	+0.0	-1.9	127.30	+1.2	+1.2
September	126.06	-0.3		127.39	+0.0	
October	126.16	+0.0		125.41	-1.5	
November	125.25	-0.7	-1.0	123.57	-1.4	-2.0
December	123.51	-1.3		123.64	+0.0	
January,1990	123.92	+0.3		124.58	+0.7	
February	122.18	-1.4	-2.0	124.03	-0.4	-0.2
March	121.01	-0.9		123.19	-0.6	
April	120.26	-0.6		123.83	+0.5	
May	118.96	-1.0	-2.9	123.42	-0.3	-0.6
June	117.22	-1.4		122.13	-1.0	
July	115.60	-1.3		120.22	-1.5	
August	115.50	-0.0	-3.0	120.55	+0.2	-2.0
September	114.34	-1.0		121.21	+0.5	
October	112.05	-2.0		121.24	+0.0	
November	110.40	-1.4	-3.7	120.68	-0.4	-0.1
December	110.01	-0.3		119.67	-0.8	

The Virginia Leading Index is adjusted to a 1982-84 base and includes Average Weekly Hours for Production Workers; New Businesses; Valuation of Building Permits, deflated to 1982-84 dollars; and Average Weekly Initial Claims. The Virginia Coincident Index includes Nonagricultural Wage and Salary Employment; Total Unemployment Rate; Taxable Retail Sales, deflated to 1982-84 dollars; and Average Hourly Earnings of Manufacturing Production Workers, deflated to 1982-84 dollars. The Coincident Index also uses a 1982-84 base. All series are adjusted for seasonality and month of cyclical dominance.

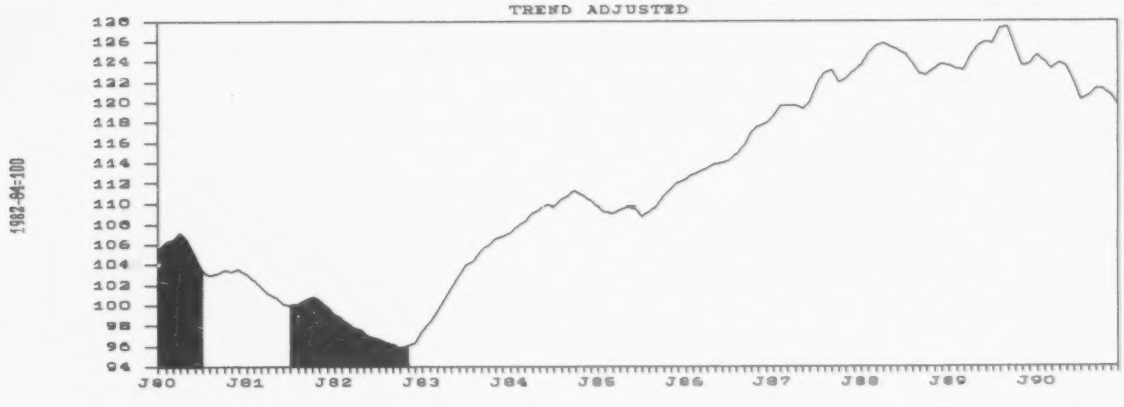
None of the changes of the Leading Index components from the previous quarter were favorable. Large increases in Initial Claims for Unemployment Insurance paced the seventh straight quarterly decline in the Index.

After revisions to Nonagricultural Employment, the Total Unemployment Rate, and Hourly Earnings of Production Workers; the Coincident Index has now declined for five consecutive quarters. All of the Coincident series had relatively small changes from the third quarter to the fourth causing only a one-tenth percent decline in the overall Index.

VIRGINIA INDEX OF LEADING INDICATORS



VIRGINIA INDEX OF COINCIDENT INDICATORS



VIRGINIA 1990 NONAGRICULTURAL EMPLOYMENT PERFORMANCE AND 1991-1993 FORECAST

1990 in Review

Nonagricultural wage and salary employment, one of the fifteen series used regularly in this publication to measure the Virginia economy, is annually revised to new benchmarks (unemployment compensation employer tax records) in the first quarter of the calendar year. The table on page 23 shows a comparison of revised average annual 1990 and 1989 nonfarm employment on the new benchmark basis. The benchmark revisions show nonagricultural employment in 1990 grew 1.3 percent for a 35,700 increase in the number of new jobs for Virginians. This growth was less than the 3.2 percent job gain recorded between 1988 and 1989 as the downturn and the Persian Gulf crisis impacted Virginia's economy in the last half of 1990. The nation saw slightly faster nonfarm job growth of 1.8 percent in 1990 because of exports helping the heavily industrialized midwest and a reviving oil market in the southwest.

Still, five of the eight major employing divisions--services, government, finance, transportation, and trade set records in Virginia most of the year. These five divisions also had annual averages for 1990 that were above all previously recorded Virginia annual averages.

Of the major divisions, services (Virginia's largest employer at 735,400) continued to be the fastest grower in 1990, both on a percentage (+4.3 percent) and a numerical basis (30,400). Again in 1990, rapid expansions were noted at business services; health services; private, social, and educational services; recreational facilities; engineering and management consultants; and repair specialists. Government, Virginia's third largest employer in size at 579,200 jobs in 1990, grew by 3.0 percent or 16,600. Most of the gain was in local educational institutions.

Finance-insurance-real estate grew 1.2 percent or 1,800 to 154,200 because of hires in insurance and banking. This increase came in spite of reductions at real estate brokers and several savings and loans being taken over by banks at the request of the federal banking authorities. Transportation and public utilities at 148,800 grew 1.1 percent or 1,600. Transportation carriers were recovering in 1990 from disruptive strikes in 1989.

Trade, Virginia's second largest employer at 655,700, grew by only 0.2 percent or 1,000 jobs in 1990. The sudden removal of about 40,000 military personnel from the Hampton Roads area with the eruption of the Persian Gulf Crisis last summer, a weak tourist season as the result of recession in the states to the north of Virginia, and postponed purchases by Northern Virginia's federal employees while Congress and the President wrangled over a fiscal 1991 federal budget, contributed to the lack-luster trade performance. Also, hurting the trade figures was the demise of the Richmond-based Miller

EMPLOYMENT IN NONAGRICULTURAL INDUSTRIES IN VIRGINIA
ANNUAL AVERAGES (IN THOUSANDS)
REVISED TO FIRST QUARTER 1990 BENCHMARKS

	1990	1989	Change 1989-1990	% Change 1989-1990
TOTAL NONAGRICULTURAL	2,897.6	2,861.9	+35.7	+ 1.3
MANUFACTURING	425.9	429.6	- 3.7	- 0.9
Durable Goods	206.6	207.0	- 0.4	- 0.2
Lumber & Wood Products	24.8	25.7	- 0.9	- 3.5
Furniture & Fixtures	23.2	24.1	- 0.9	- 3.7
Stone, Clay, & Glass	14.5	14.9	- 0.4	- 2.7
Primary Metal Industries	11.7	11.6	+ 0.1	+ 0.9
Fab. Metal Products	18.2	18.3	- 0.1	- 0.6
Industrial Machinery	22.2	21.6	+ 0.6	+ 2.8
Electronic Equipment	34.7	34.3	+ 0.4	+ 1.2
Transportation Equipment	43.6	43.0	+ 0.6	+ 1.4
Instruments & Rel. Equipment	10.7	10.3	+ 0.4	+ 3.9
Miscellaneous Manufacturing	3.1	3.2	- 0.1	- 0.3
Nondurable Goods	219.3	222.6	- 3.3	- 1.5
Food & Kindred Products	36.7	35.8	+ 0.9	+ 2.5
Tobacco Products	13.3	13.5	- 0.2	- 1.5
Textile Mill Products	40.5	42.0	- 1.5	- 3.6
Apparel & Other Textile Prods.	27.3	28.8	- 1.5	- 5.2
Paper	16.6	16.5	+ 0.1	+ 0.6
Printing & Publishing	35.3	35.2	+ 0.1	+ 0.3
Chemical & Allied Products	30.0	31.8	- 1.8	- 5.7
Rubber & Misc. Plastics	17.4	17.1	+ 0.3	+ 1.8
Other Nondurable Goods	2.3	2.0	+ 0.3	+15.0
MINING	15.5	14.9	+ 0.6	+ 4.0
CONSTRUCTION	183.0	195.5	-12.5	- 6.4
TRANSPORTATION & PUBLIC UTIL.	148.8	147.2	+ 1.6	+ 1.1
TRADE	655.7	654.7	+ 1.0	+ 0.2
Wholesale Trade	133.6	137.0	- 3.4	- 2.5
Retail Trade	522.2	517.7	+ 4.5	+ 0.9
General Merchandise	67.0	70.5	- 3.5	- 5.0
Food Stores	86.3	84.8	+ 1.5	+ 1.8
Automotive Dealers	58.2	58.5	- 0.3	- 0.5
Apparel Stores	32.7	31.5	+ 1.2	+ 3.8
Furniture Stores	26.8	26.0	+ 0.8	+ 3.1
Eating & Drinking Estabs.	160.3	156.0	+ 4.3	+ 2.8
Miscellaneous Retail	69.2	69.3	- 0.1	- 0.1
FIN., INS., & REAL ESTATE	154.2	152.4	+ 1.8	+ 1.2
Depository Institutions	55.1	54.3	+ 0.8	+ 1.5
Insurance Carriers	26.5	25.5	+ 1.0	+ 3.9
Real Estate	37.5	38.9	- 1.4	- 3.6
SERVICES	735.4	705.0	+30.4	+ 4.3
Hotels & Motels	44.9	44.8	+ 0.1	+ 0.2
Personal Services	33.8	32.9	+ 0.9	+ 2.7
Business Services	165.2	157.2	+ 8.0	+ 5.1
Auto Repair & Parking	22.2	21.4	+ 0.8	+ 3.7
Misc. Repair Services	8.9	8.3	+ 0.6	+ 7.2
Motion Pictures	8.9	8.3	+ 0.6	+ 7.2
Amusement & Recreation	25.0	22.9	+ 2.1	+ 9.2
Health Services	165.0	157.4	+ 7.6	+ 4.8
Educational Services	35.4	33.3	+ 2.1	+ 6.3
Social Services	39.3	35.3	+ 4.0	+11.3
Engineering & Mgt. Svcs.	95.5	94.2	+ 1.3	+ 1.4
TOTAL GOVERNMENT	579.2	562.6	+16.6	+ 3.0
Federal Government	176.8	176.3	+ 0.5	+ 0.3
State Government	139.3	136.0	+ 3.3	+ 2.4
Local Government	263.1	250.3	+12.8	+ 5.1

and Rhoads department store chain early in the year. Restaurants and specialty apparel shops were the only retail sectors that performed well in 1990. A non-economic coding shift of some wholesale establishments to services, transportation, and agriculture also reduced 1990 trade employment.

Mine employment averaged 15,500 in 1990, 4.0 percent or 600 above the 1989 average. Although coal tonnage was at a record level, most of the 1990 improvement could be traced to the settlement of a coal strike which had lasted most of 1989.

Manufacturing employment in 1990 averaged 425,900 jobs, a decrease of 0.9 percent or 3,700 from 1989. Building materials, auto components, and furniture showed some weakness all year. A number of mass temporary, mostly one-week, plant closings late in the year reduced textile and apparel levels. Both durable and nondurable goods experienced reduced employment levels.

Nondurable goods employment at 219,300 was down 1.5 percent or 3,300. Much of the nondurable loss was centered in textiles (-3.6 percent or 1,500) and apparel (-5.2 percent or 1,500) because of the above-mentioned mass inventory adjustment furloughs during the Columbus Day, Thanksgiving, and Christmas holiday weeks in the fourth quarter of the year. Losses were also recorded in chemicals (-5.7 percent or 1,800), largely because of a plant closing due to environmental hazards at the end of 1989, and in tobacco (-1.5 percent or 200). Foods (+2.5 percent or 900 to 36,700) was the best nondurable gainer with expansions at several firms. Smaller nondurable increases were recorded in rubber and plastics (+1.8 percent or 300), other nondurable goods (+15.0 percent or 300), paper (+0.6 percent or 100), and printing (+0.3 percent or 100).

Durable goods employment at 206,600 was off 0.2 percent or 400 from 1989. Producers of building and housing-related goods: furniture (-3.7 percent or 900), lumber (-3.5 percent or 900), stone-clay-glass (-2.7 percent or 400), and fabricated metals (-0.6 percent or 100) accounted for most of the durable goods loss. Miscellaneous manufacturing was also down 0.3 percent or 100. Export sales and new plant locations produced gains in industrial machinery (+2.8 percent or 600) and instruments (+3.9 percent or 400). Export sales were enough to offset defense and communications losses in electronics equipment (+1.2 percent or 400). Hiring at Virginia's shipbuilders offset a stagnant motor vehicle market causing transportation equipment (Virginia's largest manufacturing sector at 43,600) to increase 1.4 percent or 600. Small gains were also noted in primary metals (+0.9 percent or 100).

Construction employment averaged 183,000 (-6.4 percent or 12,500 below the all-time record 1989 average) as high interest rates caused a general softening in building markets. Most of the building loss was in Northern Virginia where construction employment at an average of 53,700 in 1990 was off 14.6 percent or 9,200 jobs from the previous year. Northern Virginia is at the tip-end of the currently overbuilt northeast commercial real estate market. Construction employment was also down from last year by small amounts in Hampton Roads (-4.4 percent) and in the Balance of State (-4.1 percent); but the Richmond-Petersburg area registered a 0.6 percent average gain over the year. Construction level averages in Bristol, Charlottesville, Danville, Lynchburg, and Roanoke were identical with 1989.

Summary Forecast for 1991-1993

Virginia, like the nation, is presently experiencing a mild downturn. Employment growth turned slightly negative in the final two months of 1990. Construction, real estate, and the auto-related industries are in recession now and expansion in many areas of retail trade employment has come to a halt due to overbuilding. Most other industries, however, should get through the current period in fairly good shape. Recent manufacturing furloughs have even further reduced inventories, which were already in basically good shape. The speedy favorable resolvement of Operation Desert Storm should stimulate the overall economy.

Virginia's averages for 1991 will reflect the downturn with nonagricultural employment growing only about 0.6 percent. Most of the growth will come in the last half of the year. Services will still be the fastest growing industry at 3.5 percent. Nonfarm job growth in 1992 should be stronger--in the neighborhood of about 2.0 percent; and slow, steady growth should continue in 1993.

William F. Mezger
Economist

1990 CENSUS FIGURES FOR VIRGINIA COUNTIES AND CITIES

The Census Bureau recently released final 1990 population counts for Virginia and its 136 localities. The numbers were released in conjunction with the "Thank You America Program," which is an effort by the Bureau to applaud participation in the 1990 Census.

According to the Bureau, the population of Virginia reached 6,187,358 in 1990. This figure shows a gain of 840,540 people over the 1980 Census count. The number further represents an upward adjustment of 59,000 persons over the preliminary 1990 Census data.

As expected, major growth took place in the eastern third of the state. This area is generally referred to as the "golden crescent." The 44 localities comprising the golden crescent accounted for 95 percent of the state's 840,500-person gain during the 1980s. The two largest localities in the state, Fairfax County and Virginia Beach City, are within the crescent and together are expected to comprise 42 percent of the state's total growth.

Of the state's 136 localities, 54 or 40 percent lost population. Areas of low growth or decline include Southwest, Southside, and Piedmont Virginia, and the Eastern Shore.

Census counts for Virginia's 136 counties and cities are listed below. In addition, data by race, age (18 years and over), and Hispanic origin may be obtained by calling the State Data Center, at (804) 786-8026. This information is a by-product of the PL 94-171 data.

Donald P. Lillywhite
Larry E. Robinson
Economists

Counties	1980	1990
Accomack	31,268	31,703
Albemarle	55,783	68,040
Alleghany	14,333	13,176
Amelia	8,405	8,787
Amherst	29,122	28,578
Appomattox	11,971	12,298
Arlington	152,599	170,936
Augusta	47,572	54,677
Bath	5,860	4,799
Bedford	34,927	45,656
Bland	6,349	6,514
Botetourt	23,270	24,992
Brunswick	15,632	15,987
Buchanan	37,989	31,333
Buckingham	11,751	12,873
Campbell	45,424	47,572
Caroline	17,904	19,217
Carroll	27,270	26,594

Counties	1980	1990
Charles City	6,692	6,282
Charlotte	12,266	11,688
Chesterfield	141,372	209,274
Clarke	9,965	12,101
Craig	3,948	4,372
Culpeper	22,620	27,791
Cumberland	7,881	7,825
Dickenson	19,806	17,620
Dinwiddie	22,602	20,960
Essex	8,864	8,689
Fairfax	595,754	818,584
Fauquier	35,889	48,741
Floyd	11,563	12,005
Fluvanna	10,244	12,429
Franklin	35,740	39,549
Frederick	34,150	45,723
Giles	17,810	16,366
Gloucester	20,107	30,131

Counties	1980	1990
Goochland	11,761	14,163
Grayson	16,579	16,278
Greene	7,625	10,297
Greensville	10,903	8,853
Halifax	30,599	29,033
Hanover	50,398	63,306
Henrico	180,735	217,881
Henry	57,654	56,942
Highland	2,937	2,635
Isle of Wight	21,603	25,053
James City	22,339	34,859
King and Queen	5,968	6,289
King George	10,543	13,527
King William	9,334	10,913
Lancaster	10,129	10,896
Lee	25,956	24,496
Loundoun	57,427	86,129
Louisa	17,825	20,325
Lunenburg	12,124	11,419
Madison	10,232	11,949
Mathews	7,995	8,348
Mecklenburg	29,444	29,241
Middlesex	7,719	8,653
Montgomery	63,285	73,913
Nelson	12,204	12,778
New Kent	8,781	10,445
Northampton	14,625	13,061
Northumberland	9,828	10,524
Nottoway	14,666	14,993
Orange	18,063	21,421
Page	19,401	21,690
Patrick	17,647	17,473
Pittsylvania	66,147	55,655
Powhatan	13,062	15,328
Prince Edward	16,456	17,320
Prince George	25,733	27,394
Prince William	144,636	215,686
Pulaski	35,229	34,496
Rappahannock	6,093	6,622
Richmond	6,952	7,273
Roanoke	72,945	79,332
Rockbridge	17,724	18,350
Rockingham	52,054	57,482
Russell	31,761	28,667
Scott	25,068	23,204
Shenandoah	27,559	31,636
Smyth	33,366	32,370
Southampton	18,115	17,550
Spotsylvania	31,995	57,403
Stafford	40,470	61,236
Surry	6,046	6,145
Sussex	10,874	10,248
Tazewell	50,511	45,960
Warren	21,200	26,142
Washington	46,487	45,887
Westmoreland	14,041	15,480
Wise	43,863	39,573
Wythe	25,522	25,466
York	35,463	42,422

Cities	1980	1990
Alexandria	103,217	111,183
Bedford	5,991	6,073
Bristol	19,042	18,426
Buena Vista	6,904	6,406
Charlottesville	39,916	40,341
Chesapeake	114,486	151,976
Clifton Forge	5,046	4,679
Colonial Heights	16,509	16,064
Covington	9,063	6,991
Danville	45,642	53,056
Emporia	4,840	5,306
Fairfax	20,537	19,622
Falls Church	9,515	9,578
Franklin	7,924	7,864
Fredericksburg	17,762	19,027
Galax	6,524	6,670
Hampton	122,617	133,793
Harrisonburg	24,655	30,707
Hopewell	23,397	23,101
Lexington	7,292	6,959
Lynchburg	66,743	66,049
Manassas	15,505	27,957
Manassas Park	6,524	6,734
Martinsville	18,149	16,162
Newport News	144,903	170,045
Norfolk	266,979	261,229
Norton	4,757	4,247
Petersburg	41,055	38,386
Poquoson	8,726	11,005
Portsmouth	104,577	103,907
Radford	13,456	15,940
Richmond	219,214	203,056
Roanoke	100,220	96,397
Salem	23,958	23,756
South Boston	7,093	6,997
Staunton	24,777	24,461
Suffolk	47,621	52,141
Virginia Beach	262,199	393,069
Waynesboro	18,563	18,549
Williamsburg	10,294	11,530
Winchester	20,217	21,947

HISTORICAL SUMMARY
PERFORMANCE OF INDICATORS OVER THE BUSINESS CYCLE

GENERAL INFORMATION: For those interested in studying the business cycle in Virginia, this publication includes several of the economic time series for which data is readily available on a monthly basis. From time to time, new series will be added and, if necessary, others presently included will be discontinued.

Business Cycle Turning Points

The shaded spaces on the charts represent the 1980 and 1981-82 recessions as designated by the National Bureau of Economic Research (NBER). The beginning of a recession is defined as the month when aggregate economic activity in the U. S. reaches a cyclical high, from which it begins to turn down, and the end as the month when it reaches a cyclical low, from which it begins to turn up. According to NBER, the 1980 recession began in January 1980 and ended in July 1980, and the 1981-82 recession began in July 1981 and ended in November 1982.

Seasonal Adjustment

To correlate changes in a time series and changes in the business cycle it is desirable to eliminate, insofar as possible, the effect of irrelevant factors from the data comprising the series. All series currently published in Indicators have been adjusted to minimize regular seasonal fluctuations in the data in order to show only activity related to the business cycle.

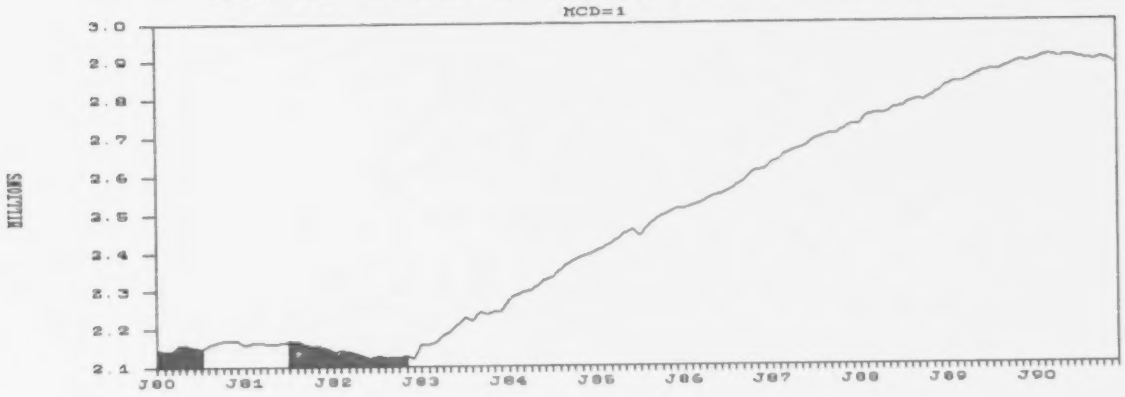
Months for Cyclical Dominance (MCD)

After seasonal adjustment there often remains a significant degree of purely random change, the effect of which can be minimized with a moving average equal in length to the MCD of the series. The MCD is an estimate of the length of the moving average which will reveal the cyclical pattern among the welter of random fluctuations in the data--the greater the MCD the more random and less cyclically significant are monthly changes in the series. Where noted, charts of historical data in this publication represent seasonally adjusted figures which have been averaged according to the MCD of each series.

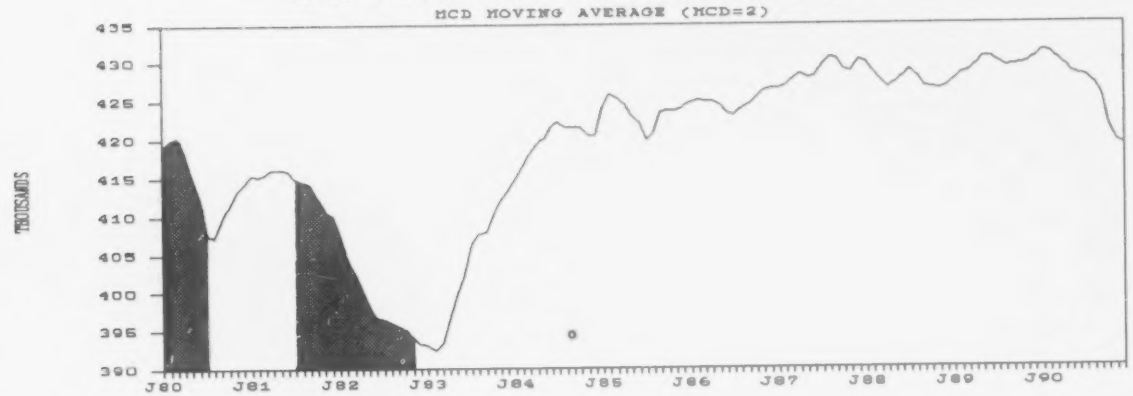
DATA SOURCES

Nonagricultural Wage and Salary Employment.....Virginia Employment Commission (VEC)
Manufacturing Employment.....VEC
Total Unemployment Rate.....VEC
Average Weekly Initial Claims.....VEC
Insured Unemployment Rate.....VEC
Unemployment Insurance Final Payments.....VEC
Average Manhours.....VEC
Average Hourly Earnings.....VEC
Average Weekly Earnings.....VEC
Average Workweek.....VEC
Average Hourly Earnings/CPI.....VEC
Average Weekly Earnings/CPI.....VEC
New Business Incorporations.....Virginia State Corporation Commission
Valuation of Building Permits - 18 Cities.....Local Building Inspectors
New Vehicle Registrations.....Virginia State Department of Motor Vehicles
Electrical Power Sales.....Virginia Power, Appalachian Power Co., Delmarva Electric Co., Tennessee Power Company
Taxable Retail Sales.....Virginia State Department of Taxation
Taxable Retail Sales/CPI.....Virginia State Department of Taxation

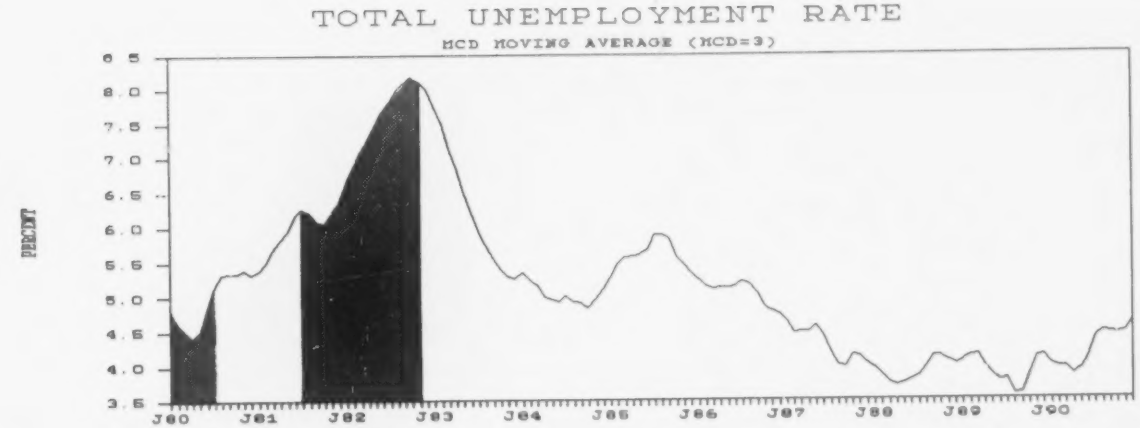
NONAG WAGE & SALARY EMPLOYMENT



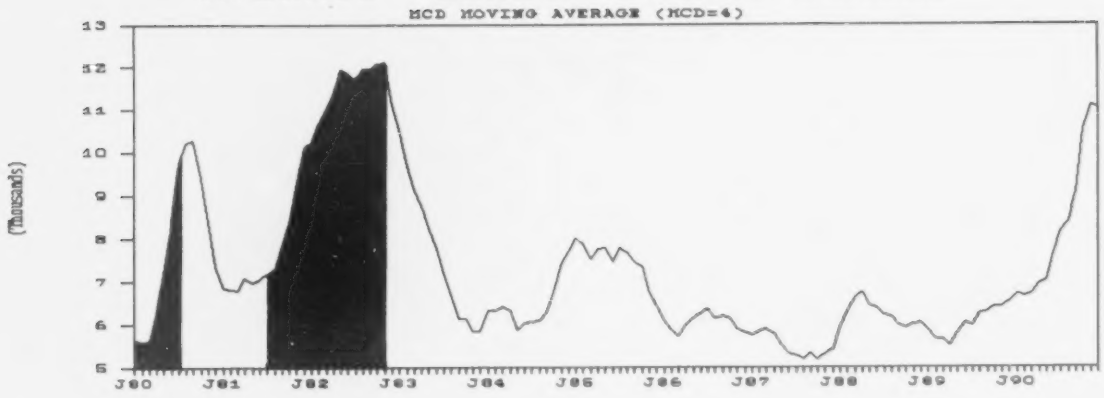
MANUFACTURING EMPLOYMENT



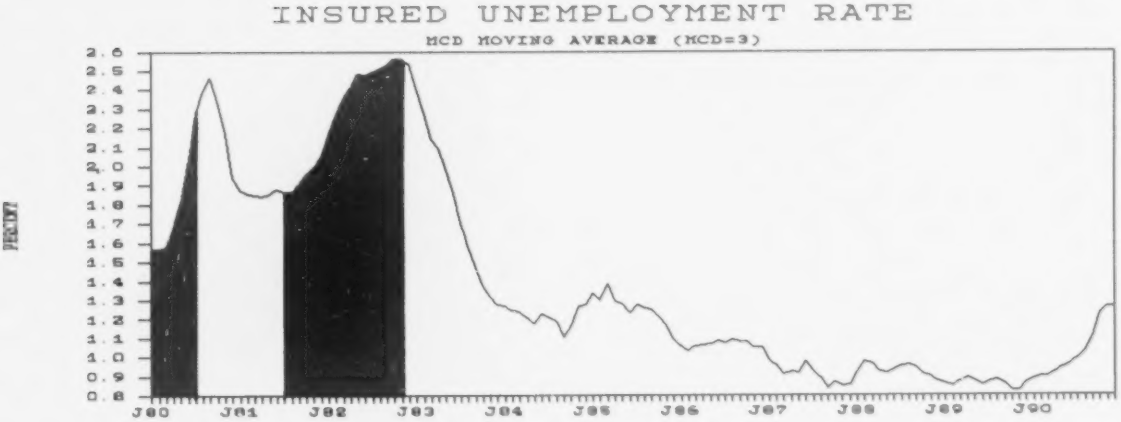
TOTAL UNEMPLOYMENT RATE



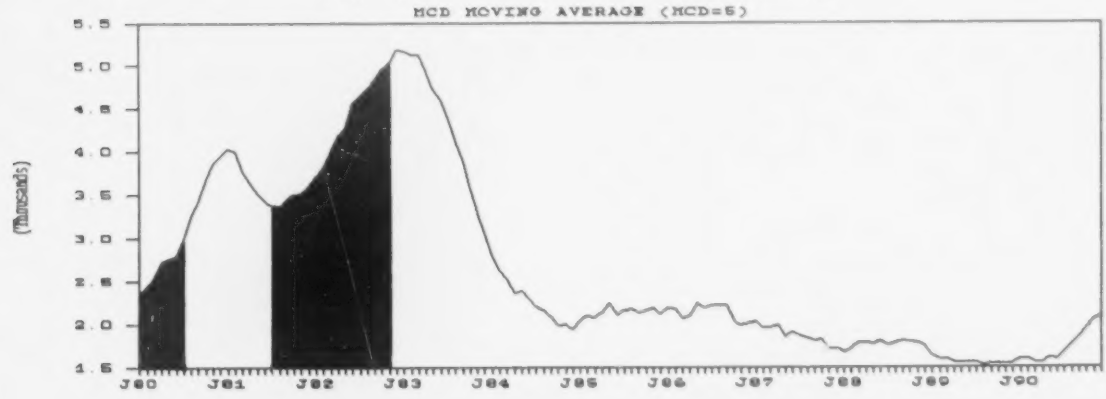
AVERAGE WEEKLY INITIAL CLAIMS



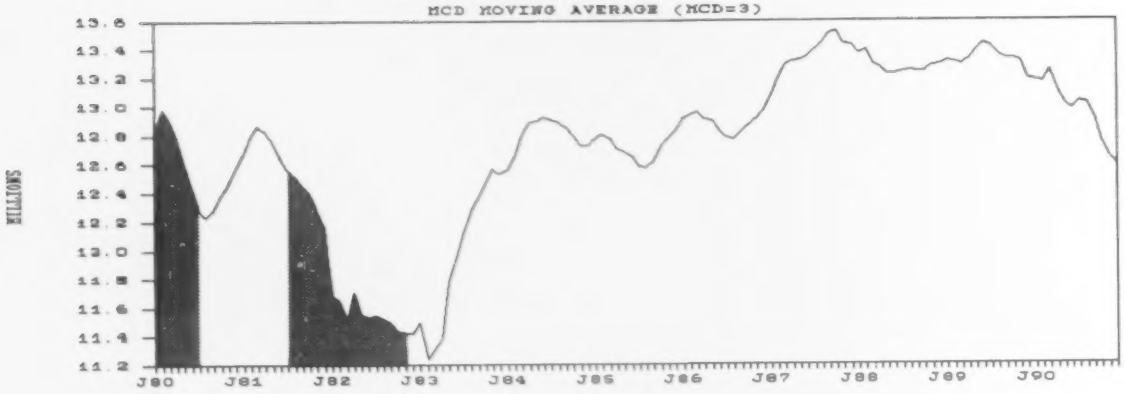
INSURED UNEMPLOYMENT RATE



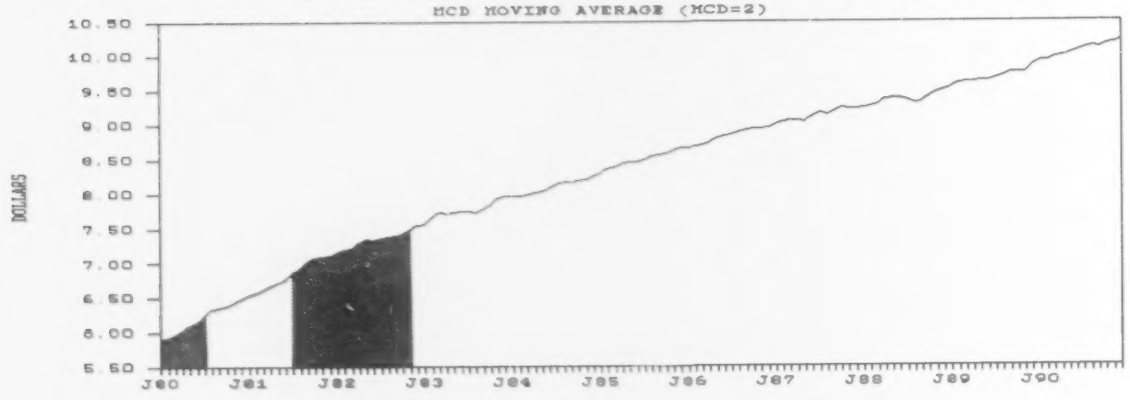
U. I. FINAL PAYMENTS



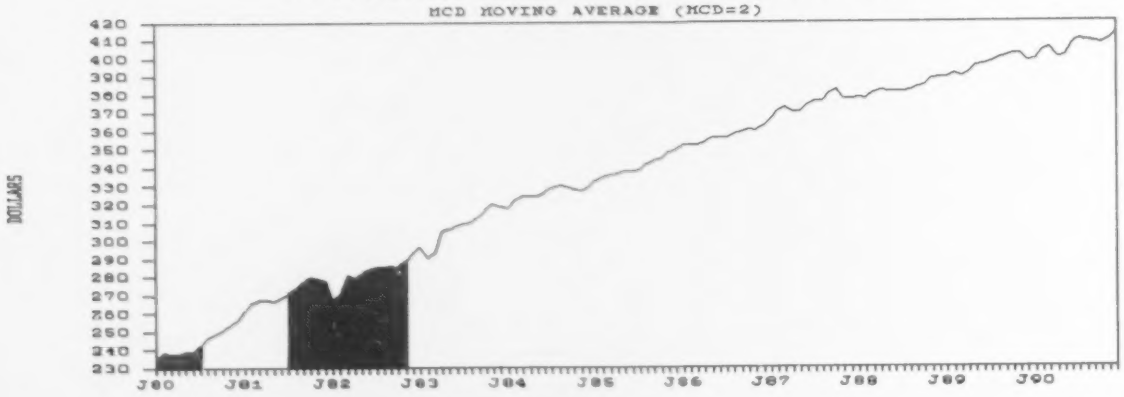
AVERAGE MANHOURS



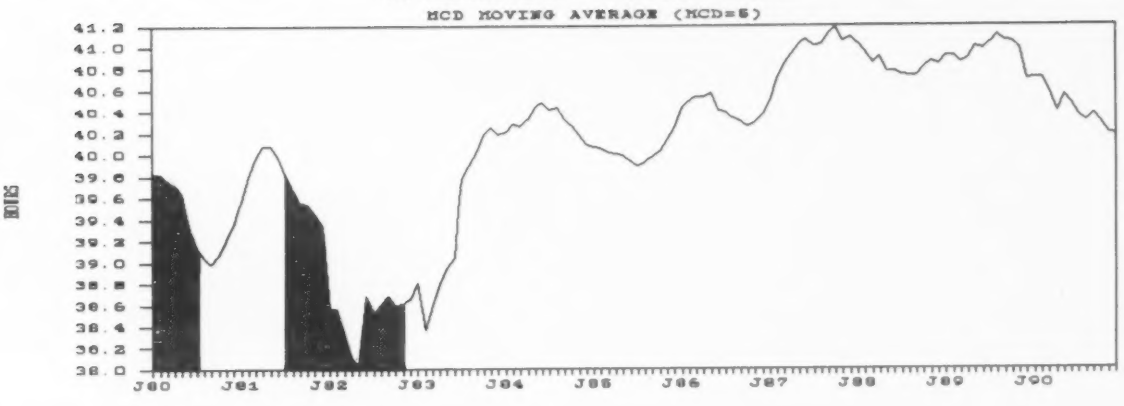
AVERAGE HOURLY EARNINGS



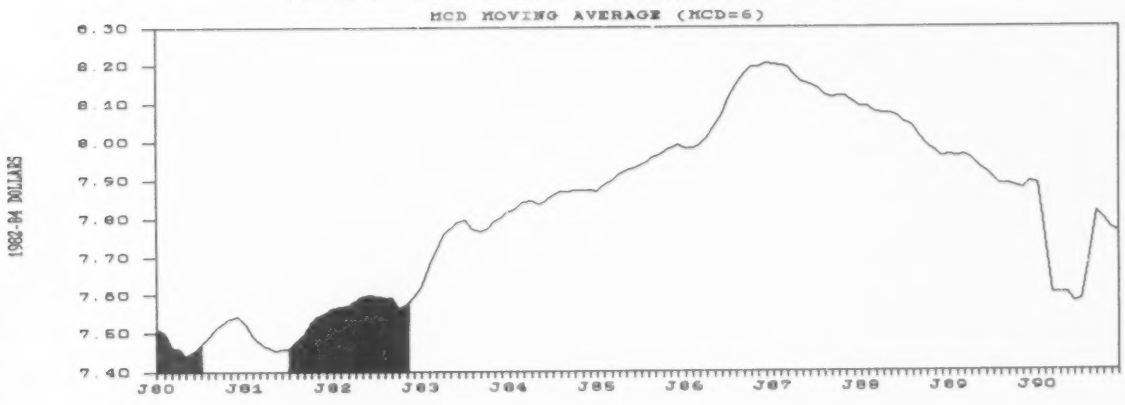
AVERAGE WEEKLY EARNINGS



AVERAGE WORKWEEK



AVG. HOURLY EARNINGS/CPI



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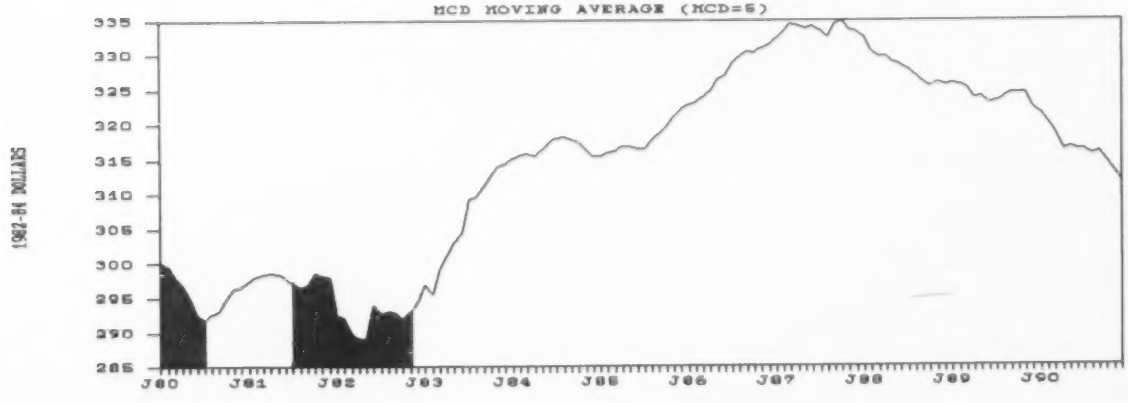

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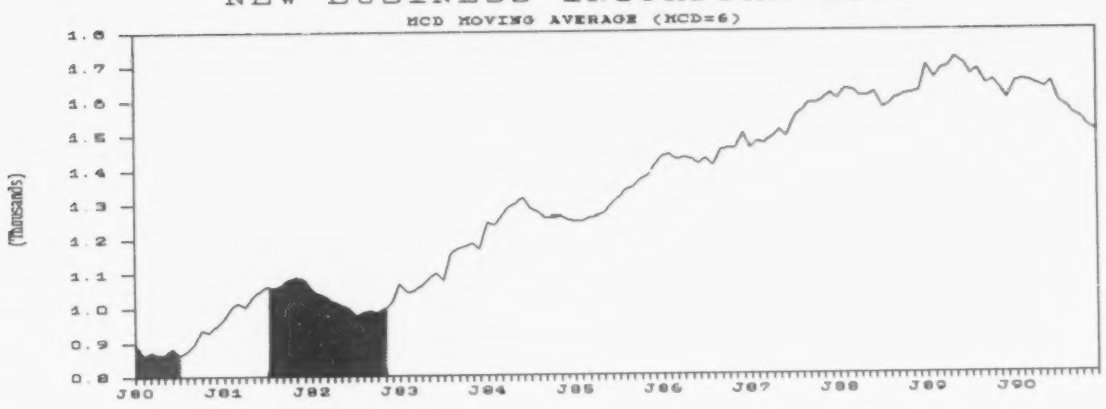

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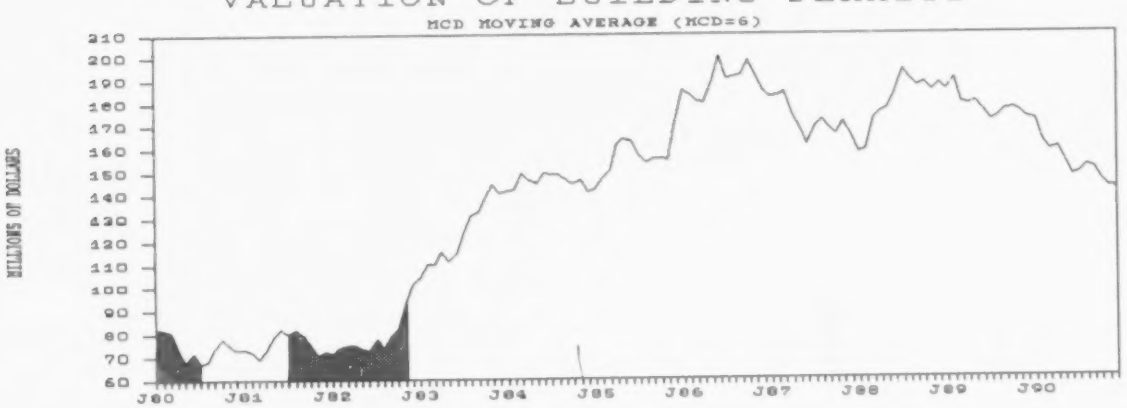

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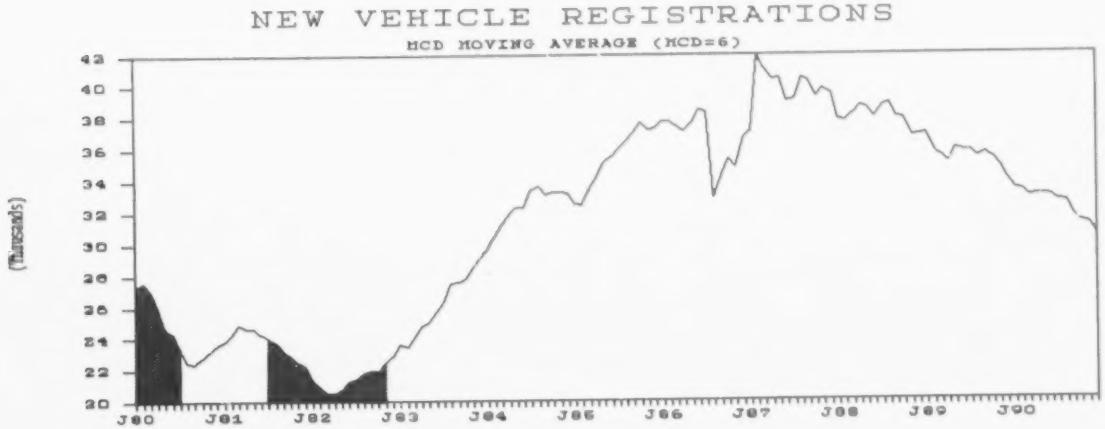

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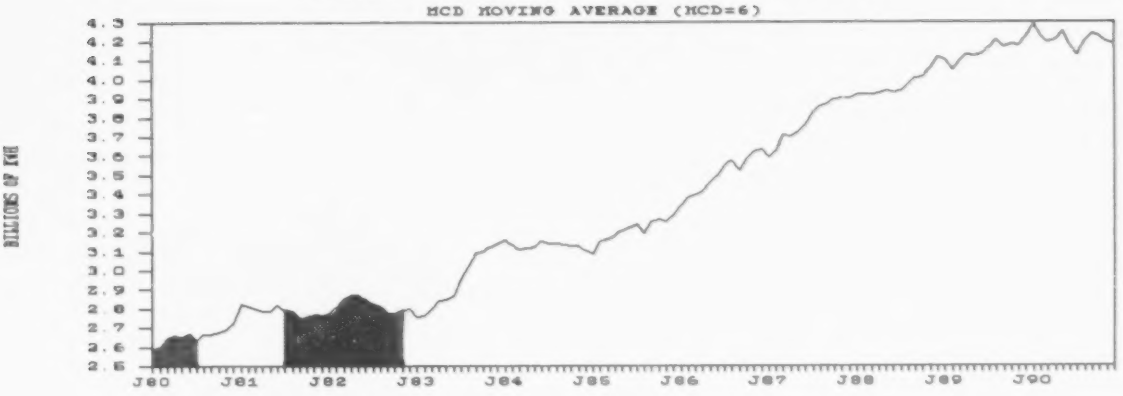

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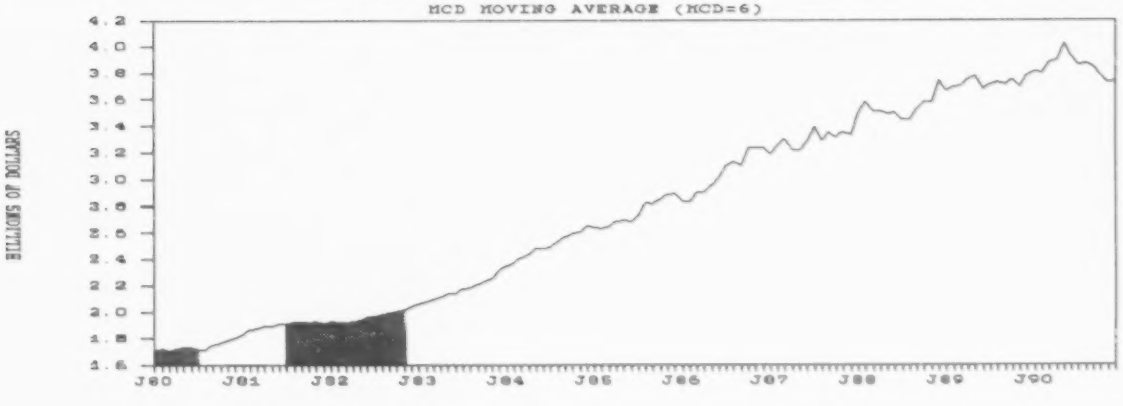

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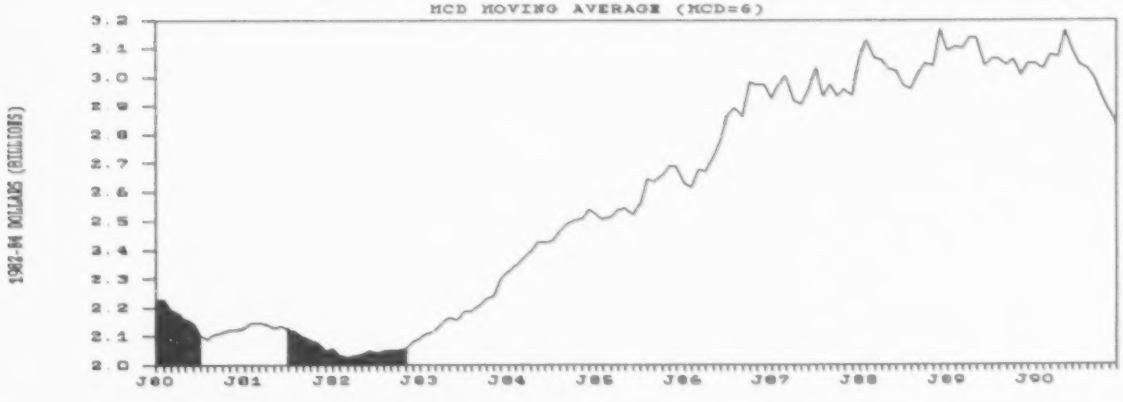

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Virginia Employment Commission

ECONOMIC INDICATORS

1st Quarter 1991 Data Volume 23 No. 1

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● NEW VEHICLE REGISTRATIONS
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ECONOMIC OUTLOOK ● MOVING
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Virginia Employment Commission

FOREWORD

This publication is designed to depict the movement of Virginia's key economic indicators in graphic and tabular form with accompanying narrative analysis.

We welcome any comments, suggestions, or questions concerning Virginia Economic Indicators. Please address your comments to: Dolores A. Esser, Director, Economic Information Services Division, Virginia Employment Commission, P. O. Box 1358, Richmond, Virginia 23211. For additional information or explanation of the contents of this document, you may contact the Economic/Operations Research section at (804) 786-5669.

Our Telephone Device for the Deaf (TDD) number is (804) 371-8050.

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ECONOMIC OUTLOOK - U.S.

VOL. 23, NO. 1 FIRST QUARTER DATA

Forecast Update

The U.S. economy proved to be weaker in First Quarter 1991 than last issue's slightly overoptimistic forecast--written in March, just a couple of weeks after the United Nations forces had scored a decisive military victory over Saddam Hussein's Iraqi army. Everyone was caught up at that time in the wave of euphoria that swept the country.

- Now that First Quarter 1991 figures are in, the U.S. economy is DEFINITELY IN RECESSION, having met the definition of recession--"two consecutive quarters of negative Gross National Product (GNP) growth."
  - GNP growth was negative by 2.8 percent in First Quarter 1991, according to Department of Commerce estimates.
  - This followed on the heels of 1.6 percent negative growth in Fourth Quarter 1990.
  - Now some experts even feel that the economy, after a year of weakening growth, had actually slipped into recession last summer.

Why did First Quarter 1991's performance turn out to be weaker than forecasted?

- Government purchases in the form of defense spending proved to be a lot less than originally projected.
  - It seems nearly all the equipment for the war was already on hand, and even the munitions had been previously stockpiled.
  - The Pentagon went ahead slashing long-range defense spending now that the cold war had ended, even while the conflict raged in the Persian Gulf.
- Uncertainties over the outcome of the war, the impact of the recession, and fear of terrorists attacks on travelers, caused consumers to reduce expenditures.
- State and local governments cut spending because of reduced revenues at home and fewer federal dollars flowing their way.
- Businesses slashed inventories deeper than expected.

Where does the economy stand now in the waning weeks of Second Quarter 1991?

- Some faint signs of recovery are starting to surface:
  - Fairly low mortgage interest rates have helped both new and existing home sales, and builders are selectively starting new houses. Housing starts should move above the one million per year annual rate by mid-1991.
  - The labor market picture looks a little brighter--new claims for unemployment insurance

benefits have fallen sharply in May and June.

- Once concerns over the labor market (i.e., fears of job loss and reduced earnings) subside, consumers will feel more comfortable about making major purchases. Already, there seems to be some pent-up demand for big ticket items.

- With the inventory adjustment layoffs of the last two quarters, inventories are now EXTREMELY LOW. In recent months a number of producers and industrial consumers have learned to live with inventories lower than what used to be thought possible. Inventories are now so low that any new orders have to mean increased production and employment.

- In May, the national index of leading economic indicators rose for the fourth month in a row. Always in the past, when the leading indicators have risen for as much as a quarter, recovery has occurred.

- U.S. companies should receive a number of contracts to rebuild Kuwait and other Persian Gulf countries damaged by the war.

• Some negative factors also persist:

- Continued defense cuts as military forces are reduced and real budget problems with many state and local governments will cause government purchases to decline through 1992.

- With the signs of recovery mounting, the Federal Reserve is unlikely to further ease monetary policy in 1991.

- With the current oversupply, not much improvement is expected in the commercial real estate market.

- The contribution to real GNP in 1991 by positive real net exports likely will quickly disappear. Real net exports have been positive recently for the first time in years because of the one-shot contribution to Persian Gulf War expenses by our allies and the fact the recession sharply reduced the demand for imported goods.

- The fact that much of the rest of the world is still in recession at the time when the U.S. economy is starting to recover will strengthen the dollar and hurt U.S. exports.

When will the turnaround come?

• From the above, indications are that GNP growth in Second Quarter 1991 should be close to zero.

• The turnaround is likely taking place now, and growth of 1.0 to 2.0 percent should resume in Third Quarter 1991.

In summary, the current recession that now appears to be commencing on recovery should prove to be milder than either the 1975 or 1981-82 recessions--more like 1954, 1958-59, and 1961--but the upturn likely will be sluggish. There just do not seem to be any forces currently in place to speed recovery as was the case in the 1980s with the defense build-up and the across-the-board tax cuts.

William F. Mezger
Economist

HIGHLIGHTS
VIRGINIA ECONOMIC INDICATORS
First Quarter 1991

- The recession and uncertainties over the Persian Gulf War adversely affected the Virginia indicator series in First Quarter 1991--causing the poorest series performance in almost a decade.

  - Nonagricultural employment at 2,863,800 in March was 1.5 percent below the all-time high March 1990 figure of 2,896,600.

  - Factory forces at 408,800 were down 5.0 percent over the year.

  - In March, three of the unemployment series--the total unemployment rate (6.1 percent), the insured unemployment rate (2.0 percent), and final unemployment payments (3,264)--were at their highest respective levels since the waning days of the 1981-82 recession.

  - After the valuation of building permits reached a two-year high of $190.1 million in February, March's value of permits issued plummeted to $64.0 million, the lowest level since early 1982.

  - New vehicle registrations at 24,476 in February hit a nine-year low, before reviving slightly to 27,118 in March.

- In spite of the recession, average hourly earnings of production workers held on to its all-time high of $10.31 per hour.

- The Consumer Price Index for All Urban Consumers (CPI-U) averaged 134.8 (1982-84=100) in First Quarter 1991. This was 0.8 percent higher than the 133.7 average of Fourth Quarter 1990. The First Quarter 1991 average was 5.3 percent higher than the First Quarter 1990 average. This was identical to the 5.3 percent first-quarter to first-quarter rise recorded between 1989 and 1990. In the past year, there was rapid price inflation in Third and Fourth Quarters 1990 caused by sharply escalating fuel prices related to the Persian Gulf crisis. In First Quarter 1991, inflation slowed because of falling fuel prices and the recession.

- According to the Bureau of Labor Statistics (BLS) of the U.S. Department of Labor, productivity increased at a 0.1 percent annual rate during First Quarter 1991 in the business sector, as output declined 4.5 percent, and hours of all persons engaged in the sector fell 4.6 percent (seasonally adjusted annual rates). This was the second quarterly decline in output in succession. In Fourth Quarter 1990, business productivity had decreased 1.2 percent, as output fell more rapidly than hours.

- After an all-time record of 1.036 billion short tons in 1990, Virginia coal production was down in First Quarter 1991. According to the Energy Information Administration of the U.S. Department of Energy, Virginia first quarter coal production at 10,608,000 short tons was 15.5 percent below the 12,547,000 short tons mined in First Quarter 1990. Falling oil prices and the very mild winter were hurting coal demand.

VIRGINIA INDICATORS
First Quarter Data

The recession and uncertainties over the Persian Gulf War made their impact felt on the fifteen series used to measure the Virginia economy in First Quarter 1991.

The layoffs, which appeared in Fourth Quarter 1990, generally increased in intensity in First Quarter 1991, causing most of the employment, unemployment, and earnings series to "head south." Living up to their reputation for volatility, the business series posted some of the biggest losses in a decade as well as a few fairly respectable gains. One series--average hourly earnings--did manage to hold onto its record high of $10.31 per hour.

This downturn seemed to be having a more spotty effect than most recessions, with some industries and areas being severely impacted, while in others, it was pretty much "business as usual."

Construction, real estate, knit textiles, furniture, auto parts, banking, and retail trade have felt the recession. Services, for the most part, seems to keep on growing. Martinsville, Galax, Danville, Radford-Pulaski, and other towns in the Southside and Valley regions have been hard hit. The three large urban corridor metro areas--Northern Virginia, Richmond-Petersburg, and Hampton Roads--have been more aware of this recession than usual, although unemployment levels have remained fairly moderate. Northern Virginia real estate has been devastated, and this had produced high unemployment among construction workers in the rural areas thirty to eighty miles south and west of Washington, D.C. Roanoke, Lynchburg, Bristol, and actually much of Southwest Virginia, with the exception of New River Valley, hardly seem to know a recession is going on.

This quarter saw the most negative indicators performance in almost a decade. January saw only two series positive, four reporting no change, and nine down. February was the worst month of the quarter with two series up, three unchanged, and ten down. March was slightly improved, although a cumulative effect produced some of the worst numbers since the 1981-82 recession. Four series were up in March, one was neutral, and ten were down. As this is written, the few preliminary numbers for April and May (which are starting to filter in) would indicate improvement is beginning.

The six-month moving average of rising indicators (page 18) serves to illustrate the quarter's performance. The moving average enhances analysis because it smoothes out much of the irregularity present in many of the individual series.

Recession's Impact felt by Indicators Series

Layoffs resulting from the recession took their toll this quarter on the two employment series. Both nonagricultural wage and salary employment and factory employment were unchanged from December to January, then resumed their downward slide in

February and March. Actually, these employment series peaked out in Virginia in First Quarter 1990; and by the end of the First Quarter 1991, nonagricultural employment, at 2,863,800, was 1.5 percent below the year-earlier level; and factory forces, at 408,800, registered an annual decrease of 5.0 percent.

Recession-associated furloughs caused the four unemployment-related series to record all negative numbers throughout the quarter except for an improvement in initial unemployment insurance claims in February.

In March three of the series--the total unemployment rate (6.1 percent), the insured unemployment rate (2.0 percent), and final unemployment insurance payments (3,264)--were at their highest respective levels since the waning days of the 1981-82 recession.

The four earnings series were all either slightly negative or registered no change throughout this quarter, reflecting the reduced hours of work. Average production manhours slumped the most with losses each month of the quarter and at 12,108,000 in March, was 8.1 percent below one year earlier. Average hourly earnings held steady at an all-time high $10.31 per hour for much of quarter.

Nearly all positive activity this quarter was in the five usually volatile business indicators. New business incorporations tend to reflect businessmen's assessments of the future. New incorporations were at a respectable 1,667 in January, fell to 1,324 in February, then were slightly stronger in March at 1,351. The volatile valuation of building permits fell from $117.9 million in December to $109.4 million in January, rose to $190.1 million in February (the highest level in almost two years), then collapsed to $64.0 million in March (the lowest level since early 1982). New vehicle registrations in Virginia fell from December's already weak 26,457 to 24,476 in February (the lowest level in nine years) before reviving slightly to 27,118 in March.

In spite of the mildest winter in forty years, electric power sales were up 2.0 percent in January, fell 2.7 percent in February, then increased 4.9 percent in March to a respectable 4,111 million kilowatt hours. Taxable retail sales were generally sluggish, showing no change in January, being down in February, then gaining back the lost ground in March to end the quarter at $3,858.9 million, slightly better than at the beginning of the quarter.

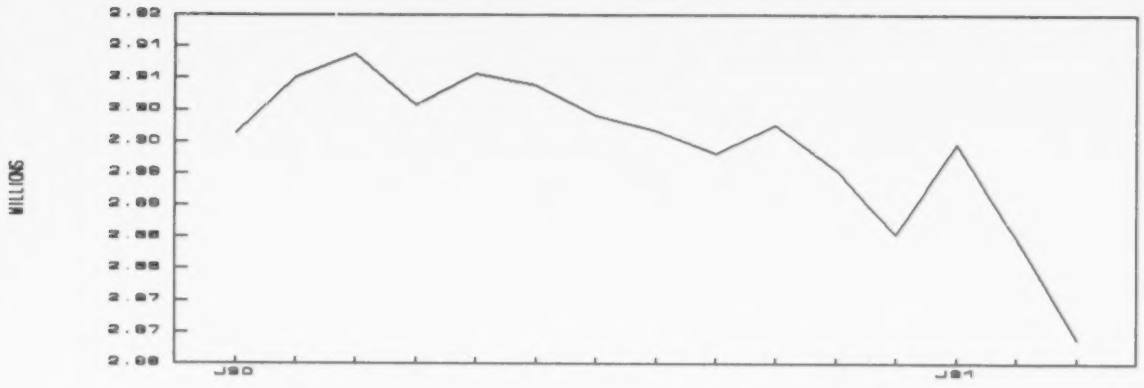
William F. Mezger
Economist

EMPLOYMENT INDICATORS
January 1990 to March 1991

	Nonagricultural Wage and Salary Employment* (Thousands)		Manufacturing Employment* (Thousands)		Total Unemployment Rate* (Percent)	
1990	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	2,846.7	2,896.3	428.6	431.7	4.4	4.0
February	2,858.0	2,905.0	427.9	430.5	4.3	4.0
March	2,881.9	2,908.7	427.8	430.2	4.0	3.9
April	2,889.6	2,900.6	426.5	428.7	3.6	3.7
May	2,917.2	2,905.6	426.9	428.1	4.0	4.2
June	2,939.6	2,903.7	429.7	428.1	4.4	4.4
July	2,905.4	2,899.0	427.5	427.7	4.2	4.6
August	2,898.7	2,896.6	428.0	426.4	4.2	4.4
September	2,911.0	2,893.1	427.0	424.4	4.4	4.4
October	2,908.3	2,897.6	420.7	418.4	4.3	4.5
November	2,911.9	2,890.5	422.2	420.3	4.6	4.6
December	2,903.1	2,880.5	418.3	417.6	4.9	4.8
1991						
January	2,844.9	2,894.6	416.0	419.0	5.9	5.3
February	2,833.8	2,879.8	412.0	414.5	6.5	6.0
March	2,837.9	2,863.8	406.6	408.8	6.2	6.1

*These series have been adjusted to First Quarter 1990 benchmarks.

NONAG W & S EMPLOYMENT



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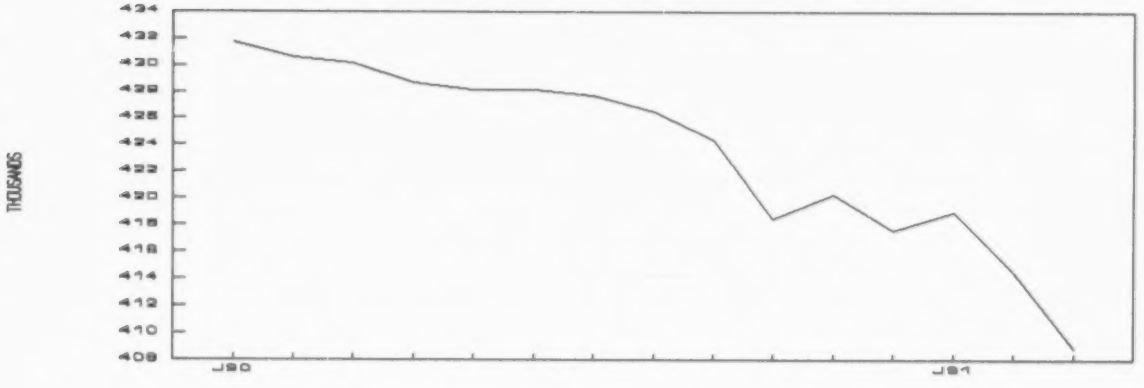
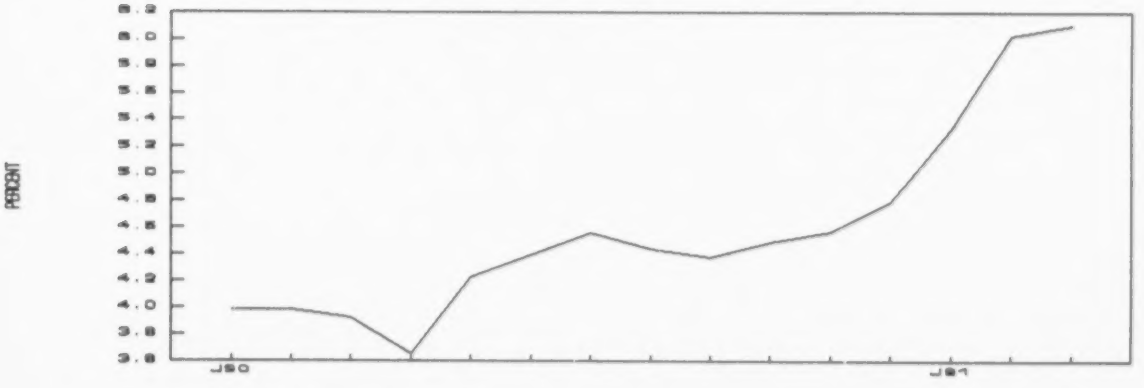


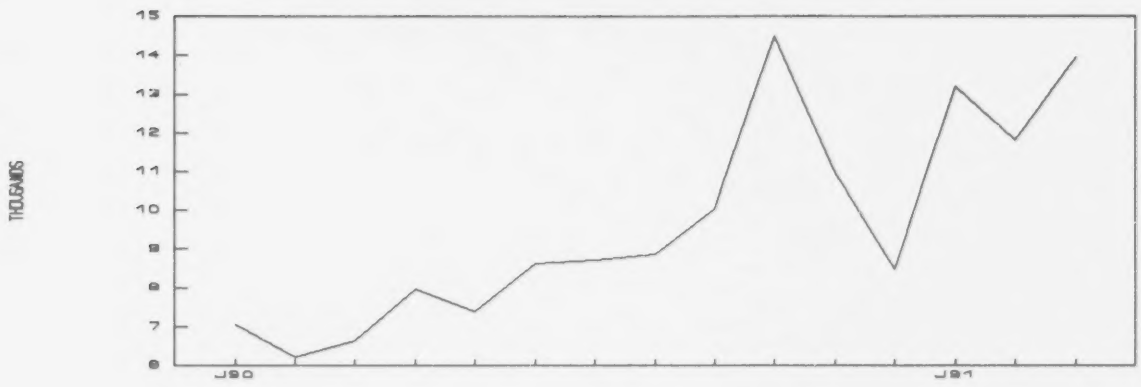
TOTAL UNEMPLOYMENT RATE



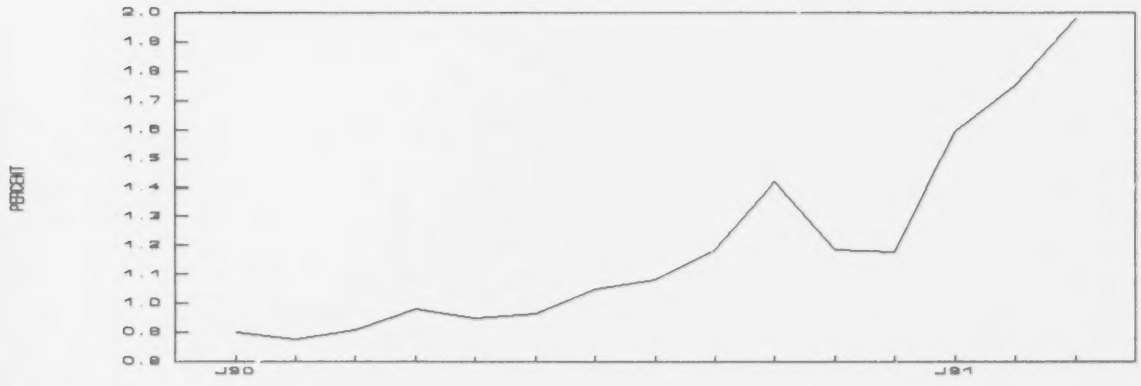
UNEMPLOYMENT INSURANCE INDICATORS
January 1990 to March 1991

	Average Weekly Initial Claims		Average Weekly Insured Unemployment (Percent)		Unemployment Insurance Final Payments	
1990	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	11,446	7,050	1.3	0.9	1,789	1,789
February	6,330	6,206	1.2	0.9	1,499	1,519
March	5,887	6,647	1.1	0.9	1,798	1,474
April	6,345	7,947	1.0	1.0	1,965	1,539
May	5,021	7,385	0.8	0.9	2,027	1,736
June	8,007	8,618	0.8	1.0	1,848	1,709
July	8,985	8,724	1.0	1.0	2,045	1,906
August	5,787	8,848	0.9	1.1	1,907	1,996
September	6,118	10,038	0.9	1.2	1,585	1,918
October	10,138	14,498	1.0	1.4	1,793	2,213
November	11,029	10,982	1.0	1.2	1,727	2,244
December	17,611	8,478	1.4	1.2	1,772	2,137
1991						
January	21,457	13,192	2.3	1.6	2,746	2,760
February	11,970	11,799	2.4	1.8	2,989	3,019
March	12,353	13,959	2.4	2.0	3,993	3,264

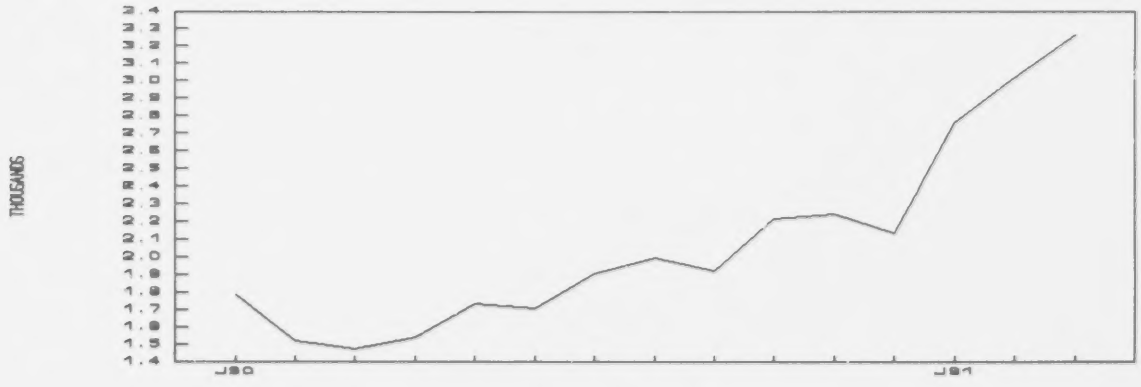
AVG. WEEKLY INITIAL CLAIMS



INSURED UNEMPLOYMENT RATE



U. I. FINAL PAYMENTS

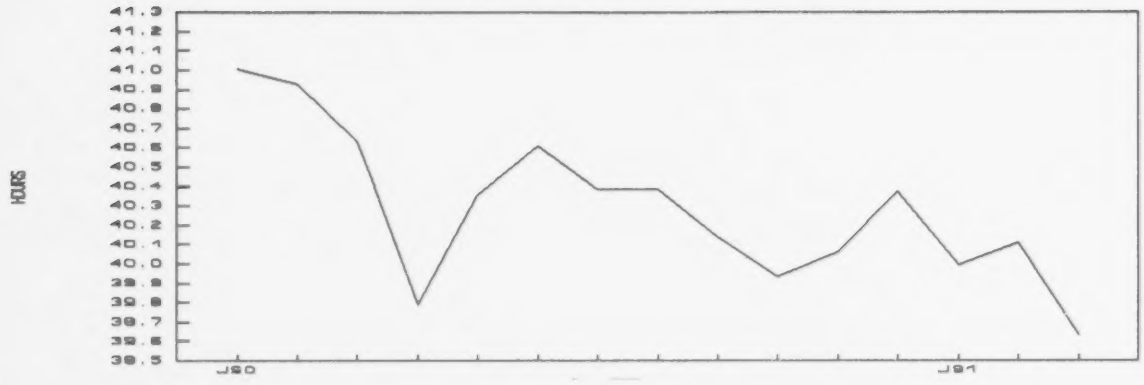


MANUFACTURING PRODUCTION WORKER INDICATORS
January 1990 to March 1991

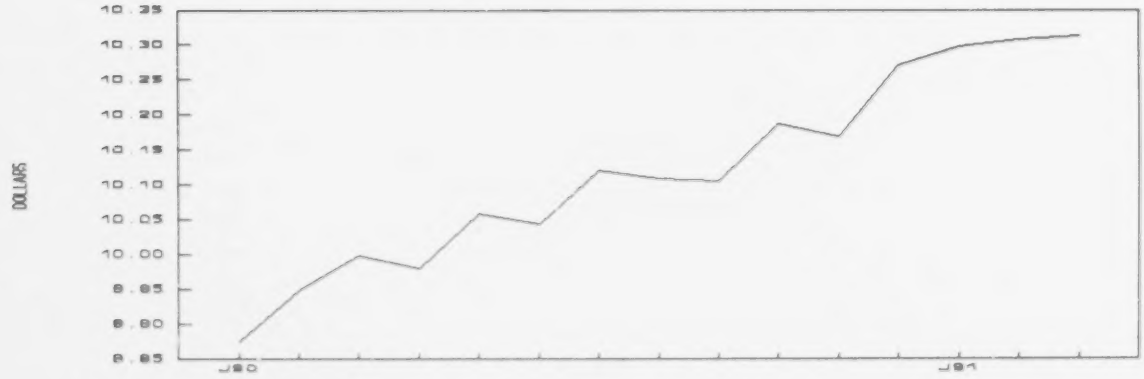
1990	Average Weekly Hours*		Average Hourly Earnings* (Dollars)		Deflated Average Hourly Earnings* (1982-84 Dollars)	
	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	40.7	41.0	9.86	9.87	7.83	7.83
February	40.2	40.9	9.90	9.95	7.83	7.85
March	40.4	40.6	9.97	10.00	7.84	7.83
April	39.6	39.8	9.93	9.98	7.80	7.85
May	40.2	40.4	10.02	10.06	7.81	7.86
June	40.8	40.6	10.06	10.04	7.82	7.82
July	40.1	40.4	10.12	10.12	7.86	7.86
August	40.2	40.4	10.11	10.11	7.78	7.78
September	40.6	40.1	10.14	10.10	7.73	7.72
October	40.1	39.9	10.20	10.19	7.73	7.74
November	40.7	40.1	10.24	10.17	7.75	7.70
December	40.9	40.4	10.31	10.27	7.80	7.75
1991						
January	39.7	40.0	10.28	10.30	7.74	7.74
February	39.4	40.1	10.25	10.31	7.72	7.74
March	39.4	39.6	10.28	10.31	7.73	7.73

*These series have been adjusted to First Quarter 1990 benchmarks.

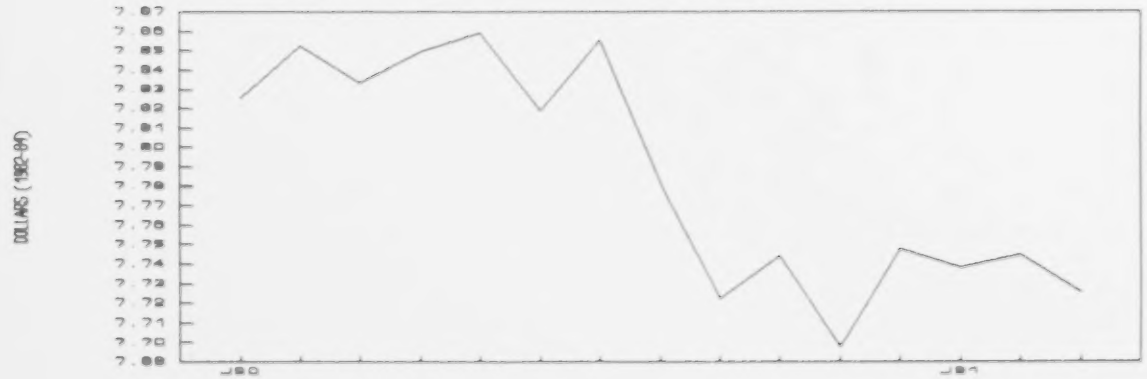
AVERAGE WEEKLY HOURS



AVERAGE HOURLY EARNINGS



AVG. HOURLY EARNINGS/CPI

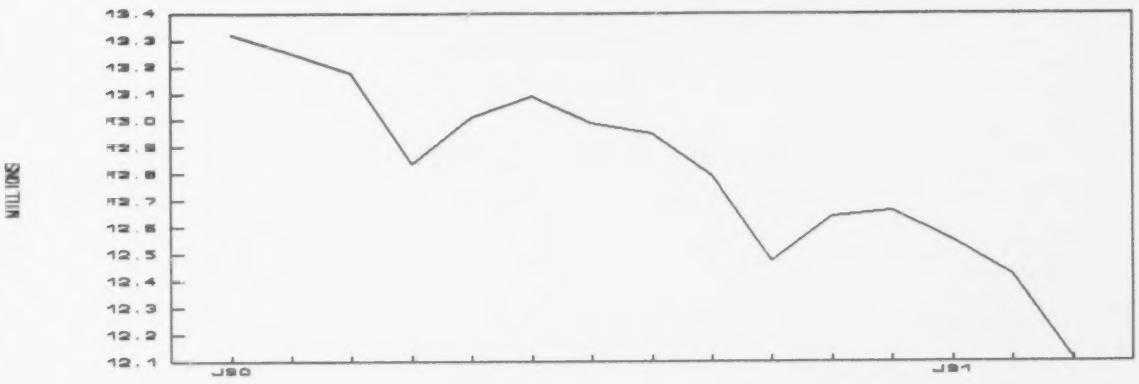


PRODUCTION WORKER INDICATORS (CONTINUED)
January 1990 to March 1991

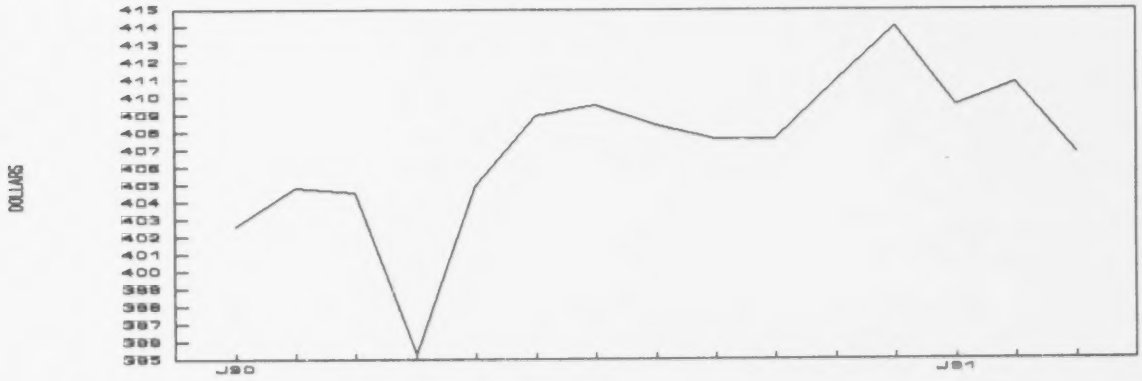
1990	Average Manhours* (Thousands) Unadjusted	Average Manhours* (Thousands) Adjusted	Average Weekly Earnings* (Dollars) Unadjusted	Average Weekly Earnings* (Dollars) Adjusted	Deflated Average Weekly Earnings* (1982-84 Dollars) Unadjusted	Deflated Average Weekly Earnings* (1982-84 Dollars) Adjusted
January	13,154.2	13,320.2	401.30	402.63	318.75	319.71
February	12,960.5	13,251.5	397.98	404.83	314.86	319.28
March	13,020.9	13,176.6	402.79	404.53	316.91	317.82
April	12,715.6	12,835.1	393.23	395.25	308.90	309.99
May	12,920.3	13,009.3	402.80	404.95	313.95	316.17
June	13,190.6	13,088.0	410.45	408.99	318.92	318.07
July	12,872.1	12,988.3	405.81	409.58	315.31	319.13
August	12,924.3	12,949.3	405.42	408.40	312.10	314.41
September	13,020.4	12,794.6	411.68	407.65	314.02	311.72
October	12,635.5	12,475.1	409.02	407.61	310.10	309.86
November	12,889.7	12,639.4	416.77	410.91	315.26	310.71
December	12,830.3	12,662.0	421.68	414.04	318.97	311.90
1991						
January	12,396.7	12,552.7	408.12	409.57	307.32	308.28
February	12,149.8	12,424.0	403.85	410.80	304.10	308.37
March	11,962.8	12,107.6	405.03	406.81	304.53	305.49

*These series have been adjusted to First Quarter 1990 benchmarks.

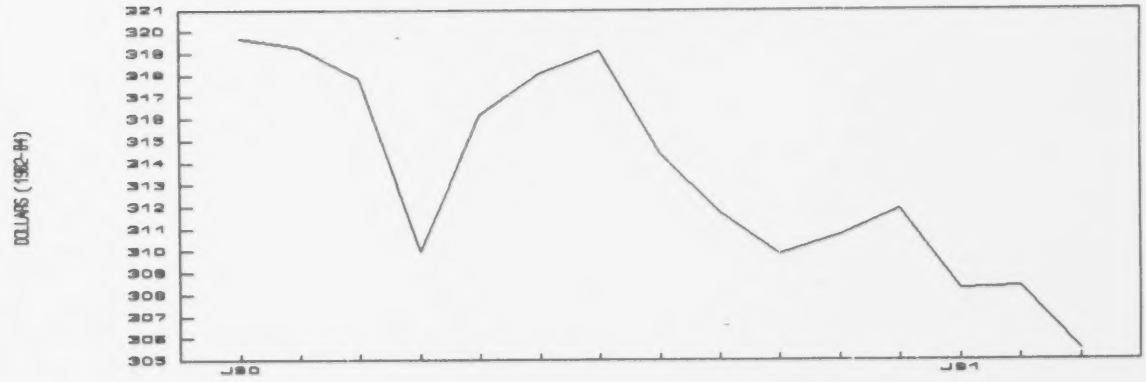
AVERAGE MANHOURS



AVERAGE WEEKLY EARNINGS



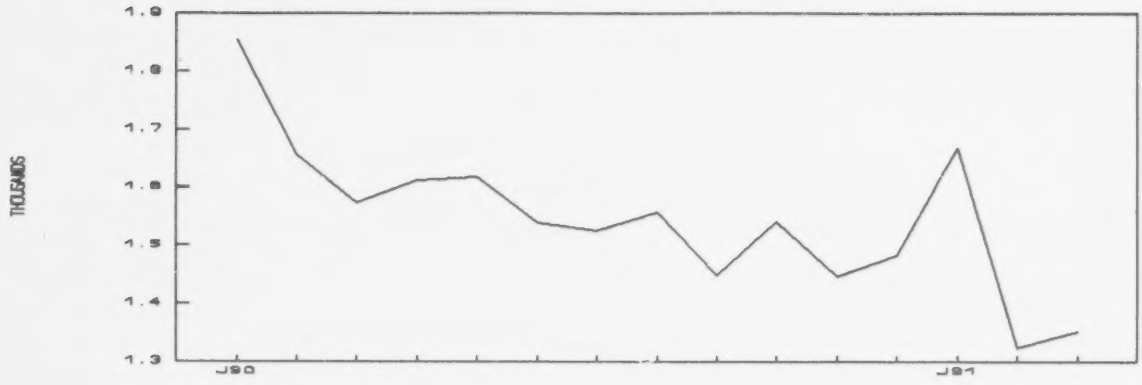
AVG. WEEKLY EARNINGS/CPI



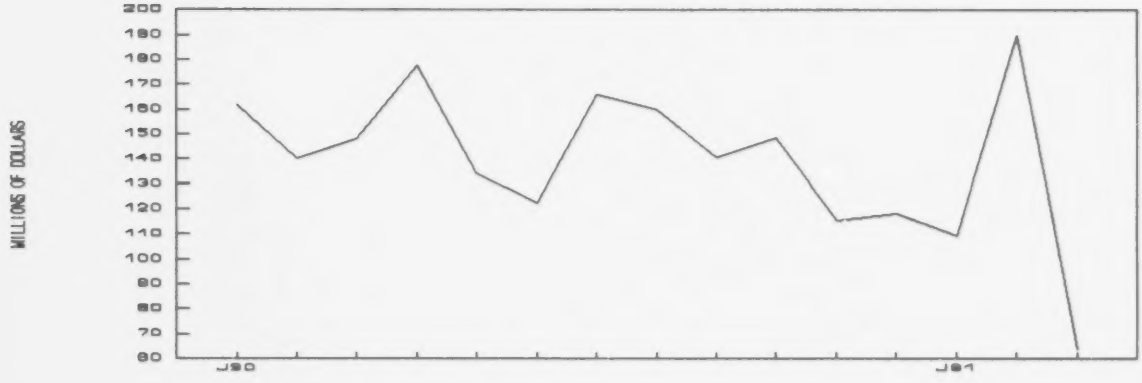
BUSINESS INDICATORS
January 1990 to March 1991

1990	New Business Incorporations		Valuation of Building Permits ($ Millions)		New Vehicle Registrations	
	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	1,732	1,854	139.7	162.0	32,551	32,690
February	1,684	1,656	107.2	140.4	29,031	33,153
March	1,827	1,572	144.0	148.1	34,317	33,224
April	1,618	1,611	163.0	177.7	36,359	34,063
May	1,751	1,618	136.2	133.9	36,933	33,210
June	1,578	1,539	162.3	122.6	34,670	30,688
July	1,426	1,524	197.8	166.1	34,817	31,203
August	1,618	1,556	186.7	160.1	33,428	32,464
September	1,319	1,448	147.8	140.8	29,640	27,924
October	1,512	1,542	149.7	148.8	34,159	32,041
November	1,273	1,448	100.3	115.2	26,012	32,392
December	1,524	1,484	100.9	117.9	18,695	26,457
1991						
January	1,557	1,667	94.0	109.4	24,994	25,149
February	1,348	1,324	146.2	190.1	21,477	24,476
March	1,573	1,351	62.0	64.0	28,031	27,118

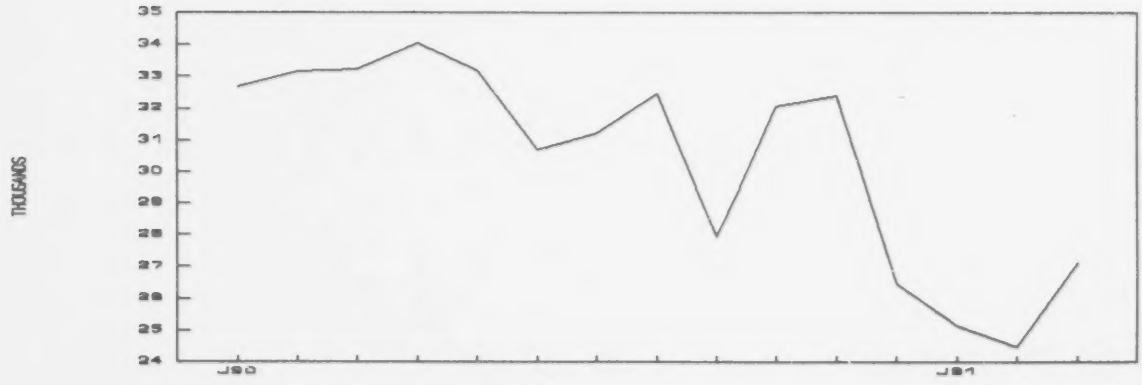
NEW BUSINESS INCORPORATIONS



VALUATION OF BUILDING PERMITS

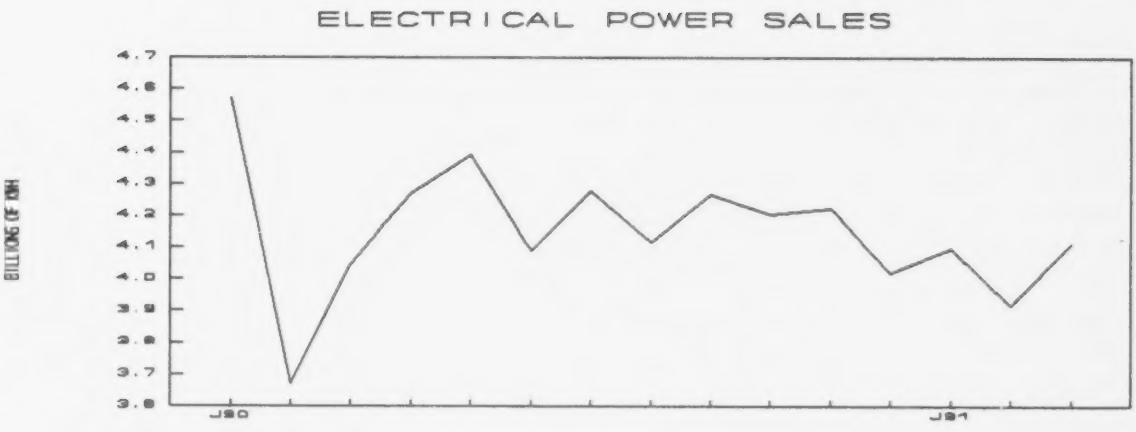


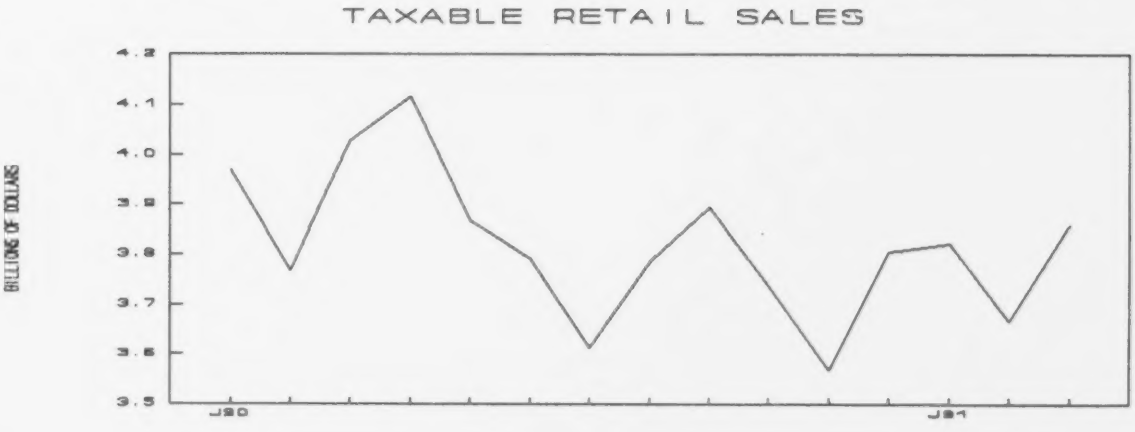
NEW VEHICLE REGISTRATIONS



BUSINESS INDICATORS (CONTINUED)
January 1990 to March 1991

	Electrical Power Sales (Millions of KWH)		Taxable Retail Sales (Millions of Dollars)	
1990	Unadjusted	Adjusted	Unadjusted	Adjusted
January	5,261.2	4,572.5	3,087.1	3,968.1
February	4,085.0	3,668.0	3,825.9	3,768.1
March	4,114.0	4,045.4	3,633.6	4,027.4
April	3,856.4	4,271.3	4,054.1	4,116.4
May	3,657.5	4,389.9	3,887.3	3,867.7
June	3,890.4	4,090.1	3,959.7	3,790.2
July	4,754.4	4,277.3	3,822.7	3,612.5
August	4,614.0	4,116.4	3,702.6	3,785.5
September	4,478.6	4,264.7	4,031.6	3,894.0
October	3,667.1	4,204.1	3,661.3	3,736.7
November	3,667.2	4,220.8	3,445.8	3,567.5
December	4,046.2	4,017.7	4,779.3	3,804.3
1991				
January	4,711.5	4,096.3	2,978.1	3,821.9
February	4,361.1	3,917.3	3,722.4	3,665.6
March	4,175.6	4,111.1	3,469.6	3,858.9

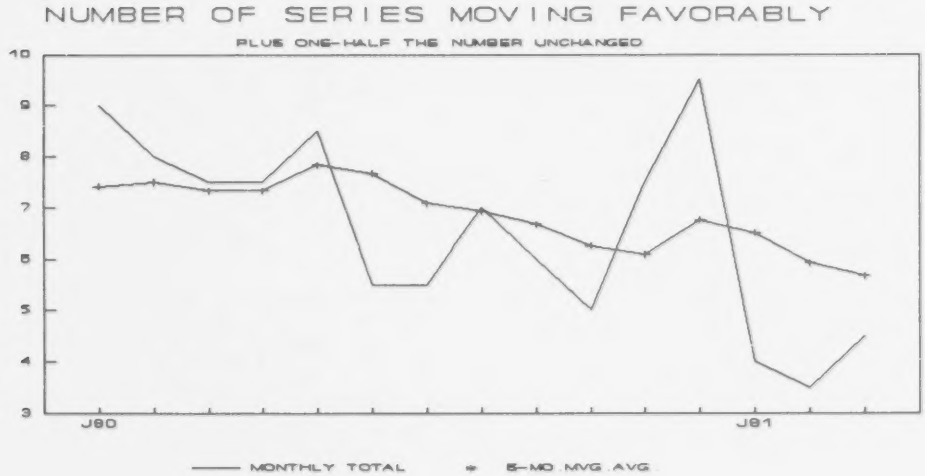

ELECTRICAL POWER SALES
BILLIONS OF KWH
4.7
4.6
4.5
4.4
4.3
4.2
4.1
4.0
3.9
3.8
3.7
3.6
J90
J91


TAXABLE RETAIL SALES
BILLIONS OF DOLLARS
4.2
4.1
4.0
3.9
3.8
3.7
3.6
3.5
J90
J91

DATA SUMMARY MARCH 1991 (SEASONALLY ADJUSTED DATA)	Mar. 1991	Feb. 1991	Mar. 1990	Percent & Direction** of Change Feb. '91- Mar. '91	 Mar. '90- Mar. '91
EMPLOYMENT					
*Nonag Wage & Salary Emp (000)	2,863.8	2,879.8	2,908.7	-0.6 (-)	-1.5 (-)
*Manufacturing Employment (000)	408.8	414.5	430.2	-1.4 (-)	-5.0 (-)
*Total Unemployment Rate	6.1	6.0	3.9	(-)	(-)
UNEMPLOYMENT INSURANCE					
Average Weekly Initial Claims	13,959	11,799	6,647	18.3 (-)	110.0 (-)
Insured Unemployment Rate (%)	2.0	1.8	0.9	(-)	(-)
Final Payments	3,264	3,019	1,474	8.1 (-)	121.4 (-)
MANUFACTURING PRODUCTION WORKERS					
*Average Weekly Hours	39.6	40.1	40.6	-1.2 (-)	-2.5 (-)
*Average Manhours (000)	12,108	12,424	13,177	-2.5 (-)	-8.1 (-)
*Average Hourly Earnings ($)	10.31	10.31	10.00	0.0 (0)	3.1 (+)
*Average Weekly Earnings ($)	406.81	410.80	404.53	-1.0 (-)	0.6 (+)
BUSINESS					
New Business Incorporations	1,351	1,324	1,572	2.0 (+)	-14.1 (-)
Valuation of Bldg Permits ($M)	64.0	190.1	148.1	-66.3 (-)	-56.8 (-)
New Vehicle Registrations	27,118	24,476	33,224	10.8 (+)	-18.4 (-)
Electrical Pwr Sales (M of KWH)	4,111	3,917	4,045	4.9 (+)	1.6 (+)
Taxable Retail Sales ($M)	3,859	3,666	4,027	5.3 (+)	-4.2 (-)

* Revised to First Quarter 1990 benchmarks.
** (+) Favorable, (-) Not Favorable, (0) Change less than 0.5%.

SUMMARY



DATA SUMMARY FEBRUARY 1991 (SEASONALLY ADJUSTED DATA)	Feb. 1991	Jan. 1991	Feb. 1990	Percent & Direction** of Change Jan. '91- Feb. '91	Percent & Direction** of Change Feb. '90- Feb. '91
EMPLOYMENT					
*Nonag Wage & Salary Emp (000)	2,879.8	2,894.6	2,905.0	-0.5 (-)	-0.9 (-)
*Manufacturing Employment (000)	414.5	419.0	430.5	-1.1 (-)	-3.7 (-)
*Total Unemployment Rate	6.0	5.3	4.0	(-)	(-)
UNEMPLOYMENT INSURANCE					
Average Weekly Initial Claims	11,799	13,192	6,206	-10.6 (+)	90.1 (-)
Insured Unemployment Rate (%)	1.8	1.6	0.9	(-)	(-)
Final Payments	3,019	2,760	1,519	9.4 (-)	98.7 (-)
MANUFACTURING PRODUCTION WORKERS					
*Average Weekly Hours	40.1	40.0	40.9	0.3 (0)	-2.0 (-)
*Average Manhours (000)	12,424	12,553	13,252	-1.0 (-)	-6.2 (-)
*Average Hourly Earnings ($)	10.31	10.30	9.95	0.1 (0)	3.6 (+)
*Average Weekly Earnings ($)	410.80	409.57	404.83	0.3 (0)	1.5 (+)
BUSINESS					
New Business Incorporations	1,324	1,667	1,656	-20.6 (-)	-20.0 (-)
Valuation of Bldg Permits ($M)	190.1	109.4	140.4	73.8 (+)	35.4 (+)
New Vehicle Registrations	24,476	25,149	33,153	-2.7 (-)	-26.2 (-)
Electrical Pwr Sales (M of KWH)	3,917	4,096	3,668	-4.4 (-)	6.8 (+)
Taxable Retail Sales ($M)	3,666	3,822	3,768	-4.1 (-)	-2.7 (-)

DATA SUMMARY JANUARY 1991 (SEASONALLY ADJUSTED DATA)	Jan. 1991	Dec. 1990	Jan. 1990	Percent & Direction** of Change Dec. '90- Jan. '91	Percent & Direction** of Change Jan. '90- Jan. '91
EMPLOYMENT					
*Nonag Wage & Salary Emp (000)	2,894.6	2,880.5	2,896.3	0.5 (0)	-0.1 (0)
*Manufacturing Employment (000)	419.0	417.6	431.7	0.3 (0)	-2.9 (-)
*Total Unemployment Rate	5.3	4.8	4.0	(-)	(-)
UNEMPLOYMENT INSURANCE					
Average Weekly Initial Claims	13,192	8,478	7,050	55.6 (-)	87.1 (-)
Insured Unemployment Rate (%)	1.6	1.2	0.9	(-)	(-)
Final Payments	2,760	2,137	1,789	29.2 (-)	54.3 (-)
MANUFACTURING PRODUCTION WORKERS					
*Average Weekly Hours	40.0	40.4	41.0	-1.0 (-)	-2.4 (-)
*Average Manhours (000)	12,553	12,662	13,320	-0.9 (-)	-5.8 (-)
*Average Hourly Earnings ($)	10.30	10.27	9.87	0.3 (0)	4.4 (+)
*Average Weekly Earnings ($)	409.57	414.04	402.63	-1.1 (-)	1.7 (+)
BUSINESS					
New Business Incorporations	1,667	1,484	1,854	12.3 (+)	-10.1 (-)
Valuation of Bldg Permits ($M)	109.4	117.9	162.0	-7.2 (-)	-32.5 (-)
New Vehicle Registrations	25,149	26,457	32,690	-4.9 (-)	-23.1 (-)
Electrical Pwr Sales (M of KWH)	4,096	4,018	4,573	2.0 (+)	-10.4 (-)
Taxable Retail Sales ($M)	3,822	3,804	3,968	0.5 (0)	-3.7 (-)

* Revised to First Quarter 1990 benchmarks.

** (+) Favorable, (-) Not Favorable, (0) Change less than 0.5%.

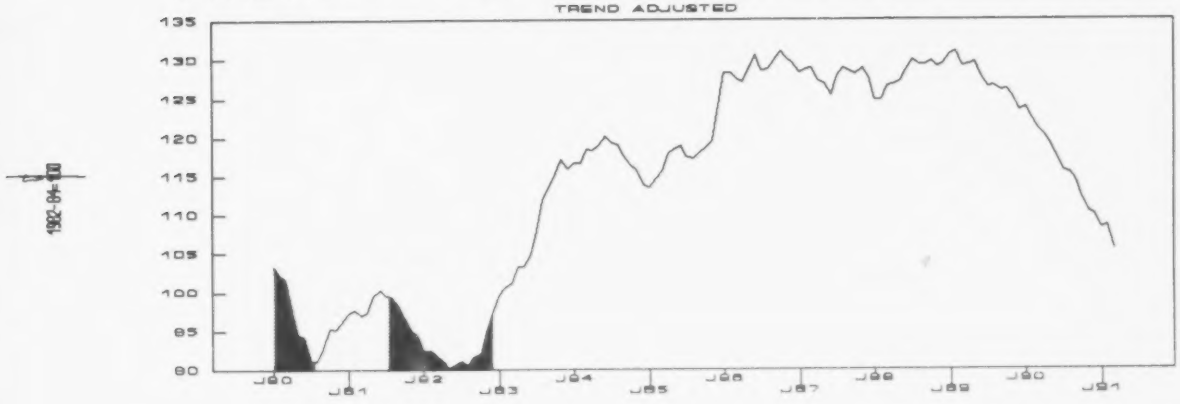
THE VIRGINIA LEADING AND COINCIDENT INDEXES

	Leading Index (82-84=100)	Monthly Percent Change	Quarterly Percent Change	Coincident Index (82-84=100)	Monthly Percent Change	Quarterly Percent Change
January,1990	123.92	+0.3		124.58	+0.7	
February	122.18	-1.4	-2.0	124.87	+0.2	+0.4
March	121.01	-0.9		124.85	-0.0	
April	120.26	-0.6		125.49	+0.5	
May	118.96	-1.0	-2.9	125.09	-0.3	+0.0
June	117.22	-1.4		123.79	-1.0	
July	115.60	-1.3		121.89	-1.5	
August	115.50	-0.0	-3.0	121.37	-0.4	-2.6
September	114.34	-1.0		121.21	-0.1	
October	112.05	-2.0		121.24	+0.0	
November	110.40	-1.4	-3.7	120.68	-0.4	-0.7
December	110.01	-0.3		119.67	-0.8	
January,1991	108.16	-1.6		118.41	-1.0	
February	108.47	+0.2	-3.1	116.13	-1.9	-3.5
March	105.43	-2.8		114.37	-1.5	

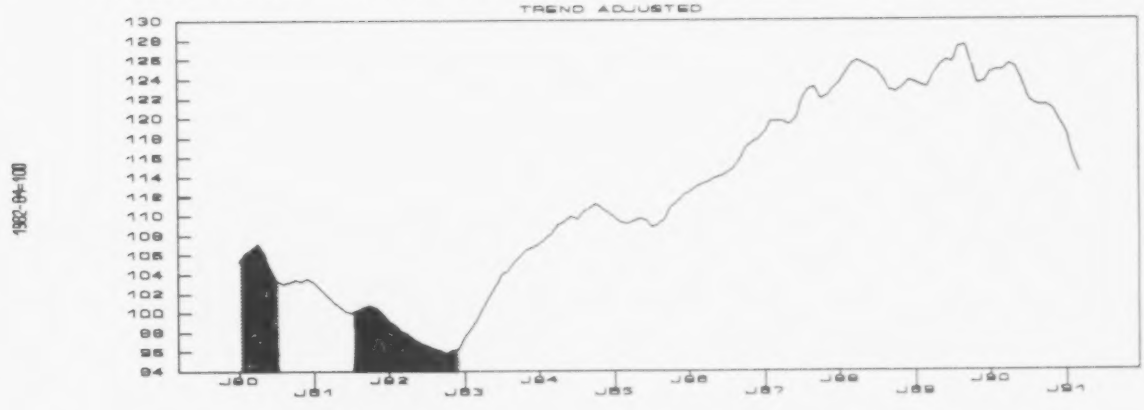
The Virginia Leading Index is adjusted to a 1982-84 base and includes Average Weekly Hours for Production Workers; New Businesses; Valuation of Building Permits, deflated to 1982-84 dollars; and Average Weekly Initial Claims. The Virginia Coincident Index includes Nonagricultural Wage and Salary Employment; Total Unemployment Rate; Taxable Retail Sales, deflated to 1982-84 dollars; and Average Hourly Earnings of Manufacturing Production Workers, deflated to 1982-84 dollars. The Coincident Index also uses a 1982-84 base. All series are adjusted for seasonality and month of cyclical dominance.

Both the Leading and Coincident Indexes reflected the recession in First Quarter 1991.

VIRGINIA INDEX OF LEADING INDICATORS



VIRGINIA INDEX OF COINCIDENT INDICATORS



EMPLOYMENT AND WAGE LEVEL ANALYSIS FOR NON-METROPOLITAN CITIES AND ECONOMIC AREAS 1980-1990

The Virginia Employment Commission will shortly release Employment and Wage Level Analysis for Non-Metropolitan Cities and Economic Areas 1980-1990. This is the third study dealing with employment and wage growth in the 1980s in Virginia areas. A summary of the most recent findings is our featured article for this issue of Economic Indicators. Summaries of the earlier studies were published in the First Quarter 1989 and First Quarter 1990 issues of Economic Indicators. The current report and the two previous reports--Good Jobs, Bad Jobs I and Good Jobs, Bad Jobs II--may be ordered in their entirety, free of charge, from the Economic Information Services Division, P. O. Box 1358, Richmond, Virginia, 23211, (804) 786-7496.

Introduction

The purpose of Employment and Wage Level Analysis for Non-Metropolitan Cities and Economic Areas 1980-1990 is to review and analyze the changes that have occurred in the employment and wage structure of the smaller or non-metropolitan cities and their associated economic areas between 1980 and 1990. The report will look at employment changes in major industries and compare the average wage levels in each industry to determine the changes in the employment and wage patterns that have taken place during the 1980s in Virginia's smaller cities and associated economic areas. In addition, a comparison of employment and wage levels will be provided between the non-metropolitan cities/economic areas, the Metropolitan Statistical Areas (MSAs), and the overall state.

The 14 Smaller Economic Areas, as defined in this report, are made up of the 17 Virginia cities that are located outside of the MSAs and the 17 counties that are tied to these cities economically by work-commuting and trading patterns, and represent important centers of employment and economic activity for the non-metropolitan areas of the state.

Approximately one of every eight jobs in Virginia was located in the Smaller Economic Areas in 1990, and these areas experienced relatively rapid employment growth during the 1980s.

The major findings regarding the employment and wage patterns in the Smaller Economic Areas, including comparisons with the overall state and the MSAs, are spelled out below with a section on major conclusions following.

Major Findings

Smaller Economic Areas

- Employment in the Smaller Economic Areas increased by 66,850 jobs between 1980 and 1990, or approximately 24 percent--a relatively rapid rate of growth which was above the nation's employment growth rate (22 percent) but considerably below the very rapid employment growth experienced by the state (37 percent) and the MSAs (42 percent).

- The employment growth leaders among the individual Smaller Economic Areas were Fredericksburg (13,500 jobs - 76 percent); Harrisonburg (11,100 jobs - 37 percent); Radford (10,600 jobs - 25 percent); and Winchester (10,400 jobs - 44 percent). These four areas combined accounted for 45,600 new jobs or 68 percent of the total employment increase in the Smaller Economic Areas.

- All but one of the 14 Smaller Economic Areas experienced positive employment growth during the 1980s--this was the Clifton Forge-Covington area which declined slightly (roughly 400 jobs - 4.5 percent).

- The Smaller Economic Areas accounted for 351,300 jobs and 12.4 percent of total state employment in 1990--about one of every eight state jobs.

- Among the individual Smaller Economic Areas, the employment leaders in 1990 were Radford with 52,600 jobs; Martinsville with 43,200 jobs; Staunton-Waynesboro with 42,900 jobs; Harrisonburg with 41,300 jobs; and Winchester with 34,100 jobs. With the exception of the Martinsville area, each of the top five employment leaders was located in the Shenandoah Valley--Interstate-81 corridor.

- Manufacturing, with 112,200 jobs, was by far the leading employer in the combined Smaller Economic Areas in 1990, accounting for almost one-third of total employment. It was also the employment leader in 12 of the 14 individual areas, being surpassed only in the Fredericksburg area by Services and in the Norton area by Mining.

- Retail Trade ranked second in the combined Smaller Economic Areas in employment among major industries in 1990 with 65,100 jobs, followed by Government with 57,450 jobs, and Services with 56,300 jobs.

- The leading employment growth generators from 1980 to 1990 among major industries in the Smaller Economic Areas were Retail Trade which added 23,200 new jobs and Services which increased by 20,760 jobs. In combination, these two industry sectors accounted for two-thirds of the total employment growth in the Smaller Economic Areas. These two sectors also had the most rapid percentage growth rates during the 1980s with Service employment increasing by 58 percent and Retail Trade employment by 55 percent.

- The all-industry average weekly wage level of $365 in the combined Smaller Economic Areas in the second quarter of 1990 was 15 percent below the statewide average and 18 percent below the MSA average for the comparable measure.

- The average wages in each of the 14 individual Smaller Economic Areas were also below comparable state and MSA averages as were the average wages for each of the major industry sectors.

- The wage differential between major industries in the Smaller Economic Areas generally followed state and MSA patterns--although generally at lower levels in virtually all sectors.

- Wage level growth in the Smaller Economic Areas was relatively rapid from 1980 to 1990 and outpaced the rate of inflation by

(Narrative continues on Page 30)

TABLE 1
EMPLOYMENT IN MAJOR INDUSTRIES FOR THE STATE,
COMBINED MSAs, AND NON-MSA CITIES/ECONOMIC AREAS
Second Quarter 1990

Industry	State	Combined MSAs	Non-MSA Cities/Economic Areas Total (Smaller Economic Areas)	Bedford Area	Buena Vista-Lexington Area	Clifton Forge-Covington Area
All Industries - Total	2,854,091	2,170,465	351,312	12,415	11,883	9,290
Agric., Forestry, Fisheries	24,516	15,343	2,857	149	74	6
Mining	15,676	1,994	4,489	50	21	---
Construction	186,536	141,430	20,115	1,314	494	585
Manufacturing	428,191	247,585	112,099	3,573	3,482	2,944
Transportations Communications, & Public Utilities	138,719	112,166	10,803	284	201	377
Wholesale Trade	133,382	103,065	12,556	415	171	120
Retail Trade	520,693	407,156	65,063	1,983	2,462	1,840
Finance, Insurance, & Real Estate	154,315	135,425	9,561	289	262	225
Services	686,992	574,285	6,318	2,272	2,483	1,641
Government	565,071	432,016	57,451	2,086	2,233	1,552
State	120,895	86,786	22,898	244	840	285
Local	262,590	196,903	31,733	1,669	1,236	1,154
Federal	181,586	148,327	2,821	173	159	113

Industry	Emporia Area	Franklin Area	Fredericksburg Area	Galax Area	Harrisonburg Area	Martinsville Area
All Industries - Total	6,932	17,375	31,250	17,784	41,3451	43,180
Agric., Forestry, Fisheries	35	446	173	110	622	134
Mining	75	9	7	26	78	79
Construction	201	965	2,675	498	3,038	1,355
Manufacturing	2,560	6,221	3,284	9,162	11,914	25,099
Transportation, Communications, & Public Utilities	349	577	961	280	995	1,356
Wholesale Trade	249	698	1,677	233	2,637	719
Retail Trade	1,245	2,667	9,350	2,631	7,301	5,553
Finance, Insurance, & Real Estate	158	499	1,414	312	1,228	966
Services	1,175	2,054	6,975	1,862	7,834	4,397
Government	885	3,239	4,735	2,673	5,698	3,521
State	221	1,112	1,366	658	2,357	611
Local	627	1,940	3,099	1,886	2,933	2,768
Federal	37	187	270	129	409	142

TABLE 1 (Continued)
EMPLOYMENT IN MAJOR INDUSTRIES FOR THE STATE,
COMBINED MSAs, AND NON-MSA CITIES/ECONOMIC AREAS
Second Quarter 1990

Industry	Norton Area	Radford Area	South Boston Area	Staunton-Waynesboro Area	Winchester Area	Combined MSAs & Non-MSA Cities/Economic Areas
All Industries - Total	16,750	52,610	13,537	42,899	34,062	2,521,777
Agric., Forestry, Fisheries	28	345	15	348	372	18,200
Mining	3,844	58	16	59	167	6,483
Construction	559	2,185	693	3,148	2,405	161,545
Manufacturing	989	16,044	5,928	12,043	8,856	359,684
Transportation, Communications, & Public Utilities	679	1,022	345	2,051	1,326	122,969
Wholesale Trade	636	818	309	1,642	2,232	115,621
Retail Trade	3,234	9,568	2,158	7,494	7,577	472,219
Finance, Insurance, & Real Estate	433	1,399	191	1,152	1,033	144,986
Services	3,134	7,176	1,922	6,687	6,706	630,603
Government	3,214	13,992	1,960	8,275	3,388	489,467
State	896	9,421	312	4,145	430	109,684
Local	2,005	4,281	1,526	3,848	2,763	228,638
Federal	313	290	122	282	195	151,150

Industry	Remainder of State	Combined MSAs As % of State Total	Combined Non-MSA Cities/ Economic Areas As % of State Total	Combined MSAs & Non-MSA Cities/Economic Areas As % of State Total	Remainder of State As % of State Total
All Industries - Total	332,314	76.0	12.4	88.4	11.6
Agric., Forestry, Fisheries	6,316	62.6	11.7	74.3	25.7
Mining	9,193	12.7	28.6	41.3	58.7
Construction	24,991	75.8	10.8	86.6	13.4
Manufacturing	68,507	57.8	26.2	84.0	16.0
Transportation, Communications, & Public Utilities	15,750	80.9	7.8	88.7	11.3
Wholesale Trade	17,761	77.3	9.4	86.7	13.3
Retail Trade	48,474	78.2	12.5	90.7	9.3
Finance, Insurance, & Real Estate	9,329	87.8	6.2	94.0	6.0
Services	56,389	83.6	8.3	91.9	8.1
Government	75,604	76.4	10.2	86.6	13.4
State	11,211	71.8	18.9	90.7	9.3
Local	33,952	75.0	12.1	87.1	12.9
Federal	30,436	81.7	1.6	83.3	16.7

TABLE 2
EMPLOYMENT CHANGE IN MAJOR INDUSTRIES FOR THE STATE,
COMBINED MSAs, AND NON-MSA CITIES/ECONOMIC AREAS
Second Quarter 1980 - 1990

Industry	State	Combined MSAs	Combined Non-MSA Cities/Economic Areas Total	Bedford Area	Buena Vista-Lexington Area	Clifton Forge-Covington Area
All Industries - Total	761,214	640,536	66,851	3,397	1,875	-442
Agric., Forestry, Fisheries	12,876	8,382	1,338	107	57	4
Mining	-7,169	601	-1,321	-11	-39	---
Construction	55,202	49,022	6,763	745	124	163
Manufacturing	14,672	13,220	2,510	-82	291	-1,223
Transportation, Communications, & Public Utilities	37,476	30,118	-154	49	-92	3
Wholesale Trade	29,129	26,394	2,997	141	-7	13
Retail Trade	175,841	136,900	23,186	968	938	205
Finance, Insurance, & Real Estate	49,630	46,656	1,340	72	-	-20
Services	311,547	270,110	20,723	1,128	561	270
Government	82,010	59,133	9,469	280	42	143
State	16,379	9,755	4,746	73	64	78
Local	43,031	35,897	4,480	155	19	67
Federal	22,600	13,481	243	52	-41	-2

Industry	Emporia Area	Franklin Area	Fredericksburg Area	Galax Area	Harrisonburg Area	Martinsville Area
All Industries - Total	1,098	1,318	13,501	1,749	11,119	4,344
Agric., Forestry, Fisheries	20	355	81	66	152	87
Mining	-1	-9	-1	-20	-4	11
Construction	-3	357	1,428	118	1,083	234
Manufacturing	232	-1,523	823	110	928	737
Transportation, Communications, & Public Utilities	128	19	198	-38	-10	-246
Wholesale Trade	39	69	1,017	-3	739	-53
Retail Trade	236	868	4,411	894	2,847	1,684
Finance, Insurance, & Real Estate	27	160	520	54	173	7
Services	167	696	3,528	413	3,679	1,758
Government	253	326	1,496	155	1,532	125
State	153	225	267	-8	613	138
Local	100	78	1,099	151	868	-17
Federal	---	23	130	12	51	4

TABLE 2 (Continued)
EMPLOYMENT CHANGE IN MAJOR INDUSTRIES FOR THE STATE,
COMBINED MSAs, AND NON-MSA CITIES/ECONOMIC AREAS
Second Quarter 1980 - 1990

Industry	Norton Area	Radford Area	South Boston Area	Staunton-Waynesboro Area	Winchester Area	Combined MSAs & Non-MSA Cities/Economic Areas
All Industries - Total	267	10,596	1,898	5,727	10,404	707,387
Agric., Forestry, Fisheries	2	174	-24	234	23	9,720
Mining	-1,229	-8	-9	-17	16	-720
Construction	-147	527	254	912	968	55,785
Manufacturing	91	1,072	445	-468	1,077	15,730
Transportation, Communications, & Public Utilities	80	30	107	-480	98	29,964
Wholesale Trade	-372	293	48	194	879	29,391
Retail Trade	457	3,094	785	2,241	3,558	160,086
Finance, Insurance, & Real Estate	-79	170	-8	203	61	47,996
Services	1,043	2,132	708	1,783	2,857	290,833
Government	421	3,112	-408	1,125	867	68,602
State	221	2,414	-11	434	85	14,501
Local	214	680	-386	685	767	40,379
Federal	-14	18	-11	6	15	13,726

Industry	Remainder of State	Combined MSAs As % of State Total	Combined Non-MSA Cities/ Economic Areas As % of State Total	Combined MSAs & Non-MSA Cities/Economic Areas As % of State Total	Remainder of State As % of State Total
All Industries - Total	53,827	84.1	8.8	92.9	7.1
Agric., Forestry, Fisheries	3,156	65.1	10.4	75.5	24.5
Mining	-6,449	---	(18.5)	(10.0)	(90.0)
Construction	-583	88.8	12.3	101.1	-1.1
Manufacturing	-1,058	90.1	17.1	107.2	-7.2
Transportation, Communications, & Public Utilities	7,512	80.4	-0.4	80.0	20.0
Wholesale Trade	-262	90.6	10.3	102.9	-2.9
Retail Trade	15,755	77.9	13.2	91.1	8.9
Finance, Insurance, & Real Estate	1,634	94.0	2.7	96.7	3.3
Services	20,714	86.7	6.7	93.4	6.6
Government	13,408	72.1	11.5	83.6	16.4
State	1,878	59.6	29.0	88.6	11.4
Local	2,652	83.5	10.4	93.9	6.1
Federal	8,874	59.7	1.1	60.8	39.2

TABLE 3
AVERAGE WEEKLY WAGES BY MAJOR INDUSTRY FOR THE STATE,
COMBINED MSAs, AND NON-MSA CITIES/ECONOMIC AREAS
Second Quarter 1990

Industry	State	Combined MSAs	Non-MSA Cities/Economic Areas Total	Bedford Area	Buena Vista-Lexington Area	Clifton Forge-Covington Area
All Industries - Total	$428	$447	$365	$326	$340	$400
Agric., Forestry, Fisheries	278	295	258	248	187	170
Mining	635	610	587	538	310	---
Construction	431	449	359	320	295	368
Manufacturing	486	549	428	426	404	611
Transportation, Communications, & Public Utilities	562	562	454	410	526	392
Wholesale Trade	560	584	404	377	387	326
Retail Trade	239	247	207	180	194	193
Finance, Insurance, & Real Estate	489	503	387	345	311	302
Services	416	434	324	266	320	340
Government	496	517	418	337	422	342
State	461	473	448	396	470	326
Local	445	466	396	317	391	337
Federal	592	610	502	445	414	441

Industry	Emporia Area	Franklin Area	Fredericksburg Area	Galax Area	Harrisonburg Area	Martinsville Area
All Industries - Total	$320	$407	$361	$295	$355	$363
Agric., Forestry, Fisheries	185	307	245	250	282	268
Mining	462	355	146	359	438	472
Construction	266	348	373	285	386	345
Manufacturing	374	545	456	290	405	383
Transportation, Communications, & Public Utilities	498	438	452	366	451	444
Wholesale Trade	257	359	431	381	419	396
Retail Trade	193	191	240	184	206	199
Finance, Insurance, & Real Estate	307	481	441	304	403	390
Services	270	257	350	300	315	324
Government	369	440	479	405	429	496
State	367	417	455	374	478	417
Local	362	448	484	415	377	513
Federal	485	494	539	415	518	503

TABLE 3 (Continued)
AVERAGE WEEKLY WAGES BY MAJOR INDUSTRY FOR THE STATE,
COMBINED MSAs, AND NON-MSA CITIES/ECONOMIC AREAS
Second Quarter 1990

Industry	Norton Area	Radford Area	South Boston Area	Staunton-Waynesboro Area	Winchester Area
All Industries-Total	$402	$374	$324	$378	$386
Agric., Forestry, Fisheries	192	240	388	218	242
Mining	611	396	807	390	439
Construction	376	329	286	388	386
Manufacturing	252	453	381	498	509
Transportation, Communications, & Public Utilities	403	499	419	474	466
Wholesale Trade	433	311	259	437	433
Retail Trade	201	191	183	212	224
Finance, Insurance, & Real Estate	334	346	323	372	435
Services	373	307	291	304	388
Government	439	451	342	380	364
State	484	474	391	408	373
Local	390	397	326	343	351
Federal	628	500	422	479	528

approximately 11 percent but failed to keep pace with the very rapid growth in statewide average wages which increased at approximately a 20 percent faster pace.

Conclusions

The Smaller Economic Areas are important centers of employment and economic activity--particularly to their service regions. These areas accounted for a little more than 12 percent of total state employment in 1990 and approximately 9 percent of total state employment growth from 1980 to 1990.

The rates of employment and wage growth in the Smaller Economic Areas from 1980 to 1990 were relatively rapid--out-pacing the nation's employment growth rate and the rate of inflation by significant margins--but failed to keep pace with the extremely rapid employment and wage growth experienced by the overall state and the MSAs.

However, the wage levels in the Smaller Economic Areas are, on average, 15 percent below comparable state levels with individual economic areas ranging from 10 to 25 percent below state levels. The majority of the new jobs created during the 1980s in the Smaller Economic Areas were in lower wage industries--with Retail Trade and Services accounting for two-thirds of all new jobs. While Services would not be considered a lower wage industry at the state level because it is less than three percent below the all-industry average wage (generally considered the breaking point between higher and lower wage jobs), it would be considered so in the Smaller Economic Areas because it is almost 25 percent below the state all-industry average wage.

A final point with regard to the employment and wage structure of the Smaller Economic Areas is that they are heavily dependent on Manufacturing which accounted for almost one-third of total employment in 1990 and is the most significant contributor to the wage base of these areas. Manufacturing is a slow growth industry in both the state and nation and also grew very modestly in the Smaller Economic Areas during the 1980s.

The general conclusions of this report are that while the Smaller Economic Areas have experienced relatively rapid employment and wage growth during the 1980's, they failed to keep pace with overall state employment and wage growth, and the majority of the newly created jobs in these areas were in lower wage employment sectors. Also, the dominant employer among major industries in the Smaller Economic Areas and highest wage employer and contributor to the employment and wage base--Manufacturing--is a slow growth industry and is not likely to contribute significantly to future job growth.

Robert J. Griffis
Chief Economist

HISTORICAL SUMMARY
Performance of Indicators Over the Business Cycle

GENERAL INFORMATION: For those interested in studying the business cycle in Virginia, this publication includes several of the economic time series for which data is readily available on a monthly basis. From time to time, new series will be added and, if necessary, others presently included will be discontinued.

Business Cycle Turning Point

The shaded spaces on the charts represent the 1980 and 1981-82 recessions as designated by the National Bureau of Economic Research (NBER). The beginning of a recession is defined as the month when aggregate economic activity in the U.S. reaches a cyclical high, from which it begins to turn down, and the end as the month when it reaches a cyclical low, from which it begins to turn up. According to NBER, the 1980 recession began in January 1980 and ended in July 1980, and the 1981-82 recession began in July 1981 and ended in November 1982. The NBER has not yet officially designated the current recessionary period.

Seasonal Adjustment

To correlate changes in a time series and changes in the business cycle it is desirable to eliminate, insofar as possible, the effect of irrelevant factors from the data comprising the series. All series currently published in Indicators have been adjusted to minimize regular seasonal fluctuations in the data in order to show only activity related to the business cycle.

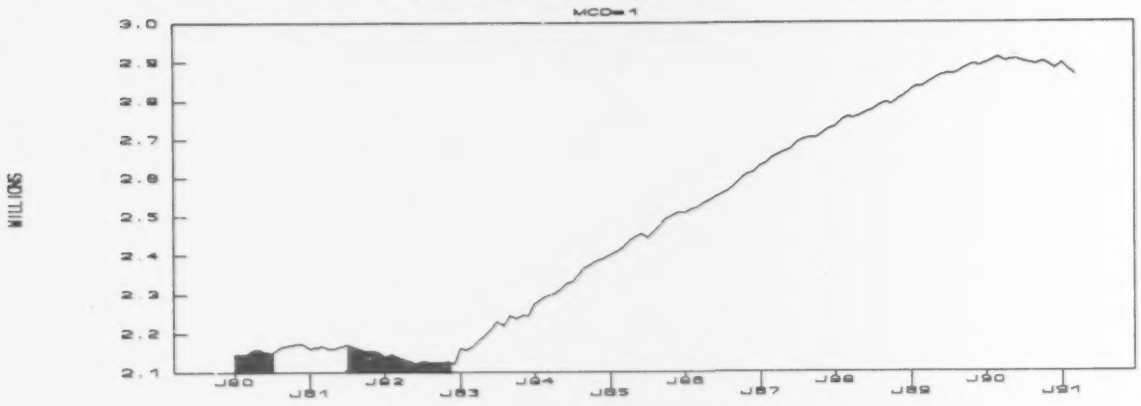
Months for Cyclical Dominance (MCD)

After seasonal adjustment there often remains a significant degree of purely random change, the effect of which can be minimized with a moving average equal in length to the MCD of the series. The MCD is an estimate of the length of the moving average which will reveal the cyclical pattern among the welter of random fluctuations in the data--the greater the MCD the more random and less cyclically significant are monthly changes in the series. Where noted, charts of historical data in this publication represent seasonally adjusted figures which have been averaged according to the MCD of each series.

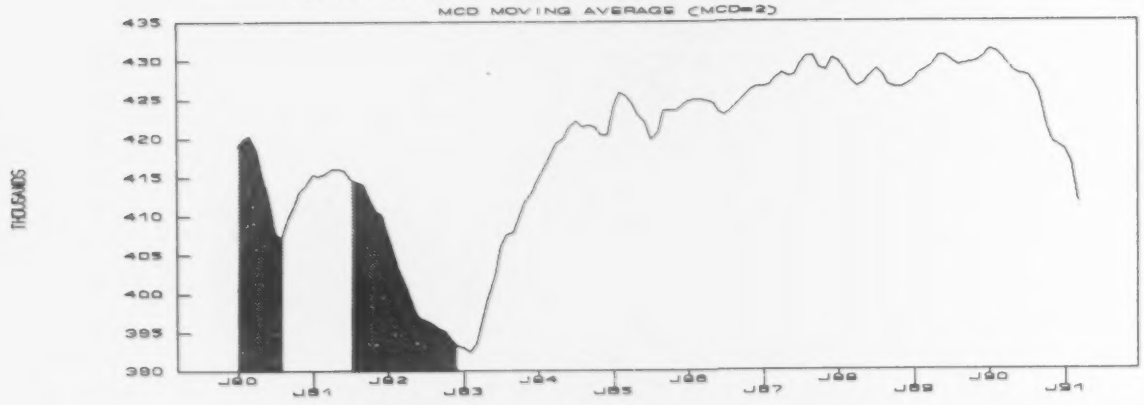
Data Sources

Nonagricultural Wage and Salary Employment.....Virginia Employment Commission (VEC)
Manufacturing Employment.....VEC
Total Unemployment Rate.....VEC
Average Weekly Initial Claims.....VEC
Insured Unemployment Rate.....VEC
Unemployment Insurance Final Payments.....VEC
Average Manhours.....VEC
Average Hourly Earnings.....VEC
Average Hourly Earnings/CPI.....VEC
Average Workweek.....VEC
Average Weekly Earnings.....VEC
Average Weekly Earnings/CPI.....VEC
New Business Incorporations.....Virginia State Corporation Commission
Valuation of Building Permits - 18 Cities.....Local Building Inspectors
New Vehicle Registrations.....Virginia State Department of Motor Vehicles
Electrical Power Sales.....Virginia Power, Appalachian Power Co., Delmarva Electric Co., Tennessee Power Company
Taxable Retail Sales.....Virginia State Department of Taxation
Taxable Retail Sales/CPI.....Virginia State Department of Taxation

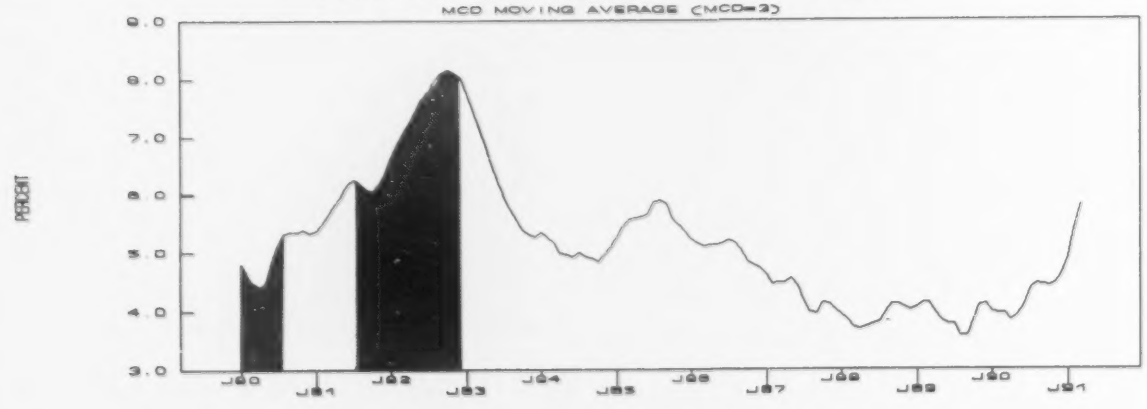
NONAG WAGE & SALARY EMPLOYMENT



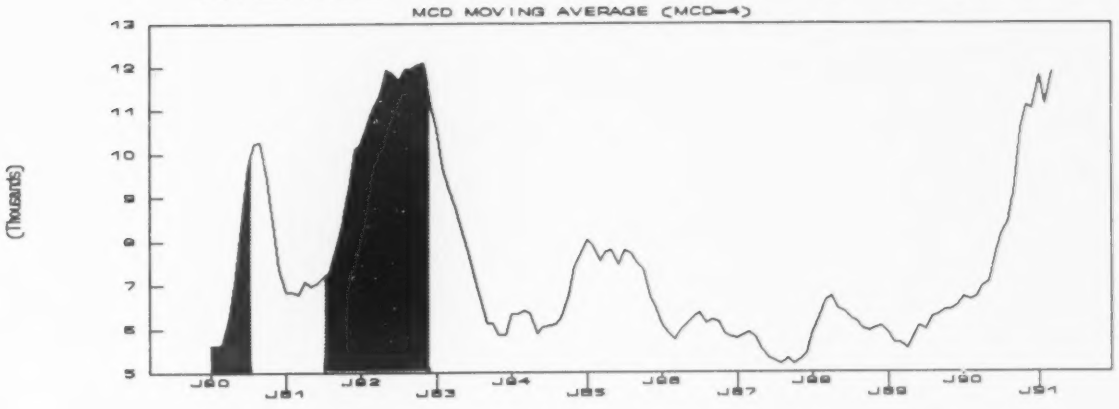
MANUFACTURING EMPLOYMENT



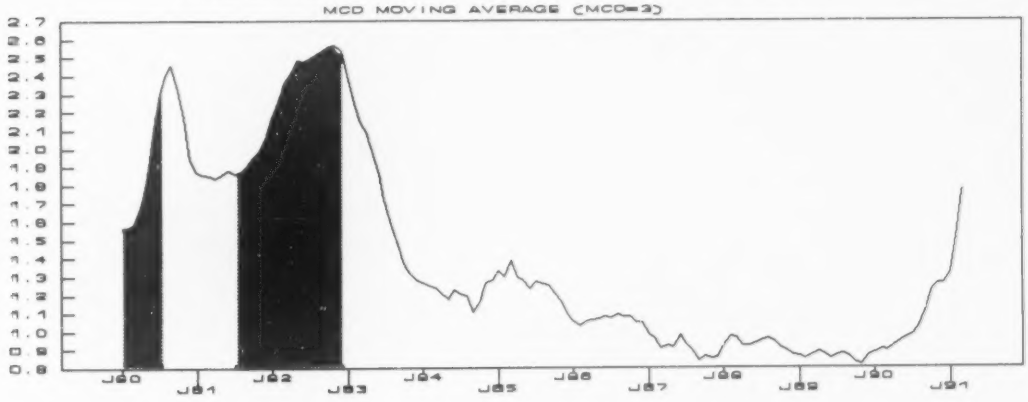
TOTAL UNEMPLOYMENT RATE



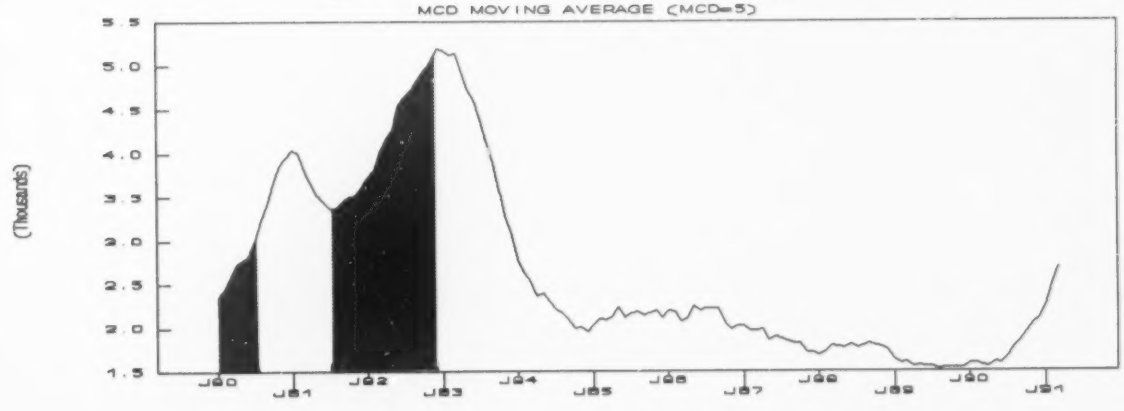
AVERAGE WEEKLY INITIAL CLAIMS



INSURED UNEMPLOYMENT RATE



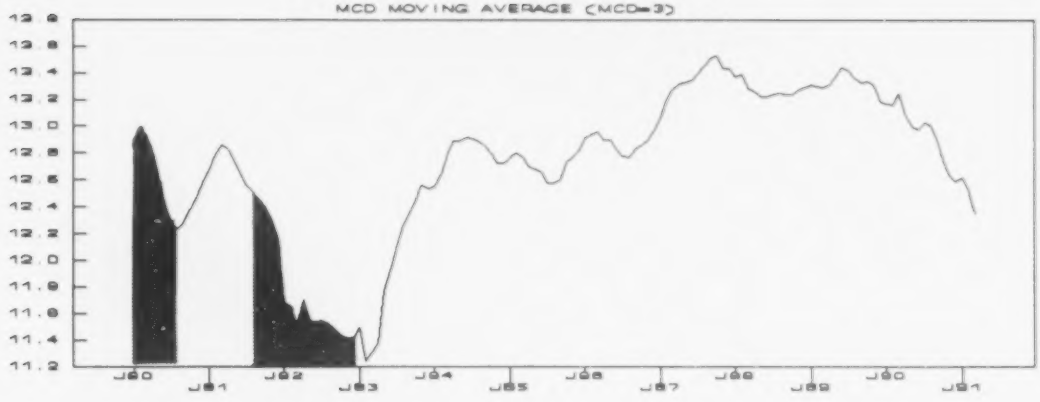
U. I. FINAL PAYMENTS



AVERAGE MANHOURS

MCD MOVING AVERAGE (MCD=3)

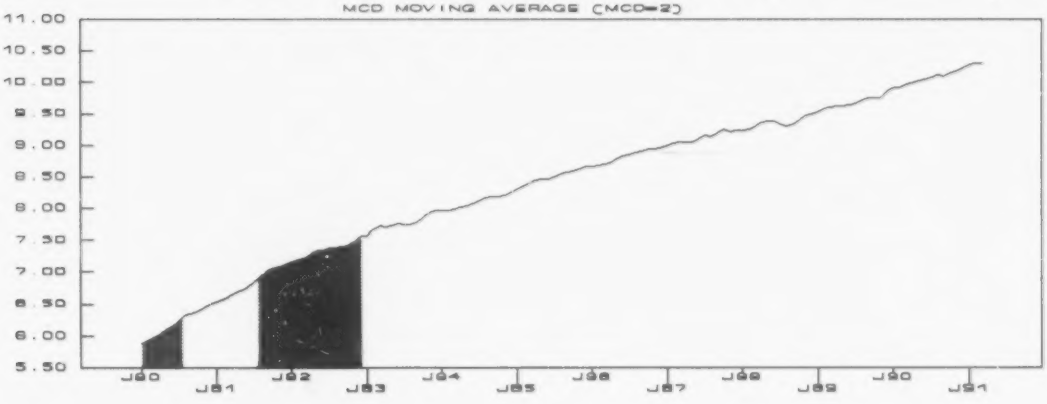
MILLIONS



AVERAGE HOURLY EARNINGS

MCD MOVING AVERAGE (MCD=2)

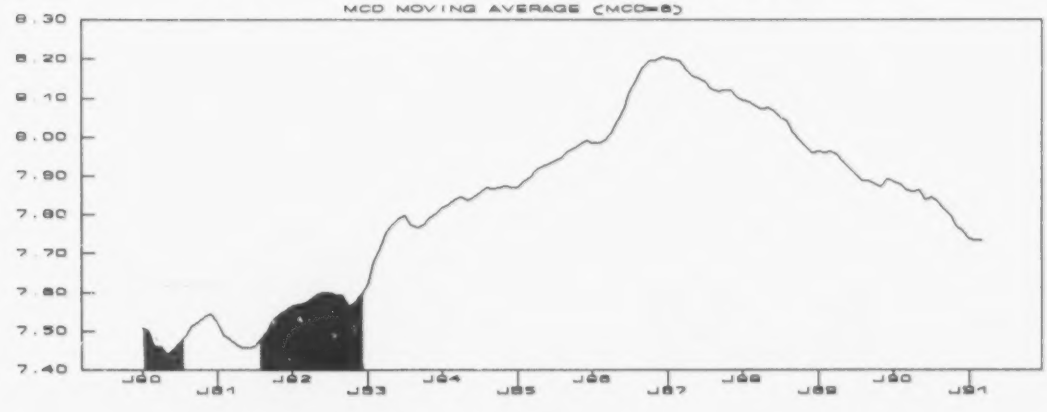
DOLLARS



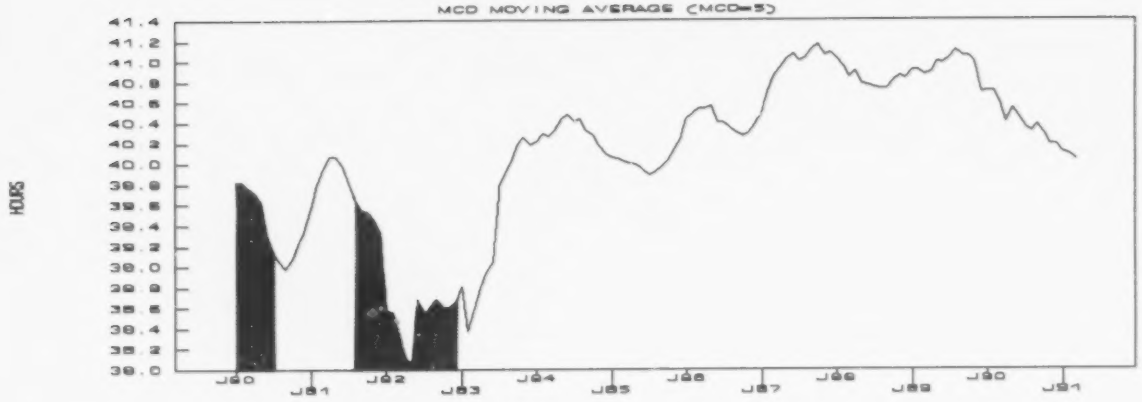
AVG. HOURLY EARNINGS/CPI

MCD MOVING AVERAGE (MCD=6)

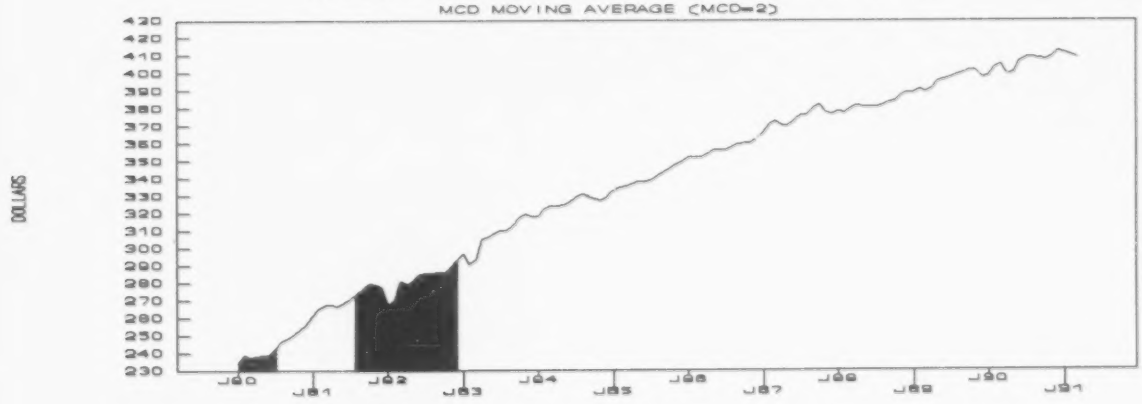
1982-84 DOLLARS



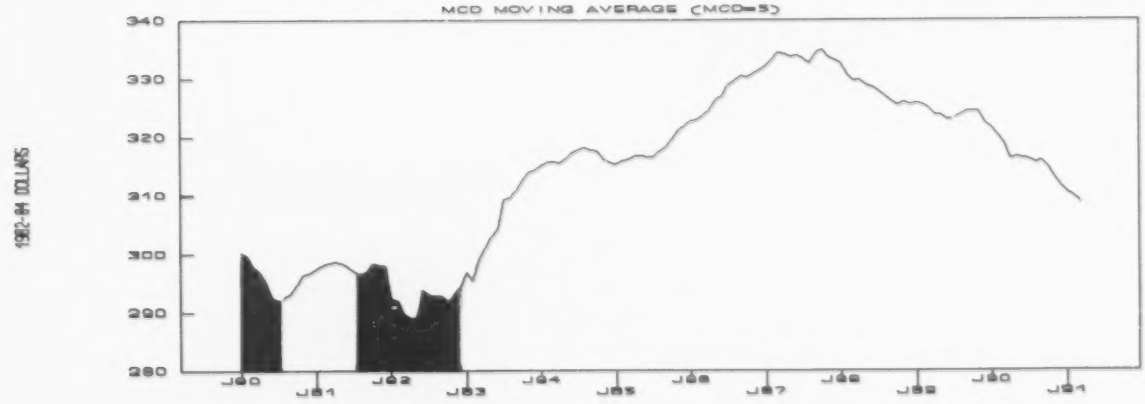
AVERAGE WORKWEEK



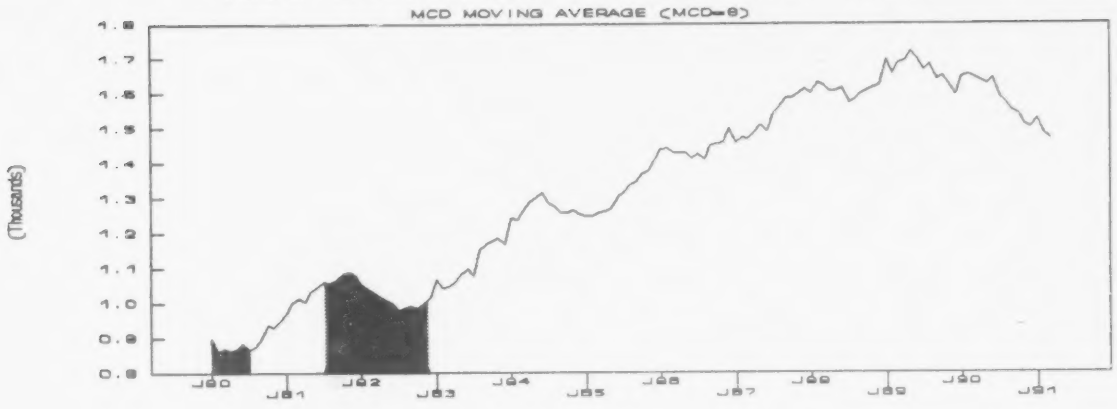
AVERAGE WEEKLY EARNINGS



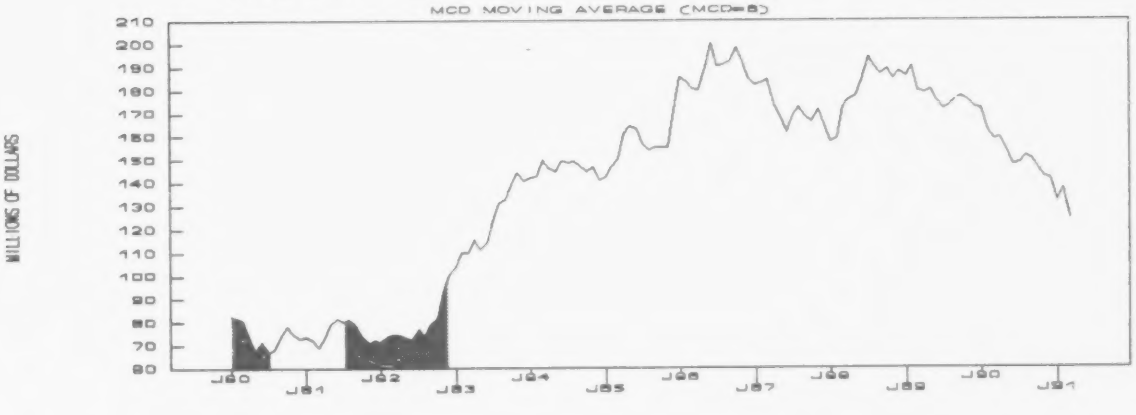
AVG. WEEKLY EARNINGS/CPI



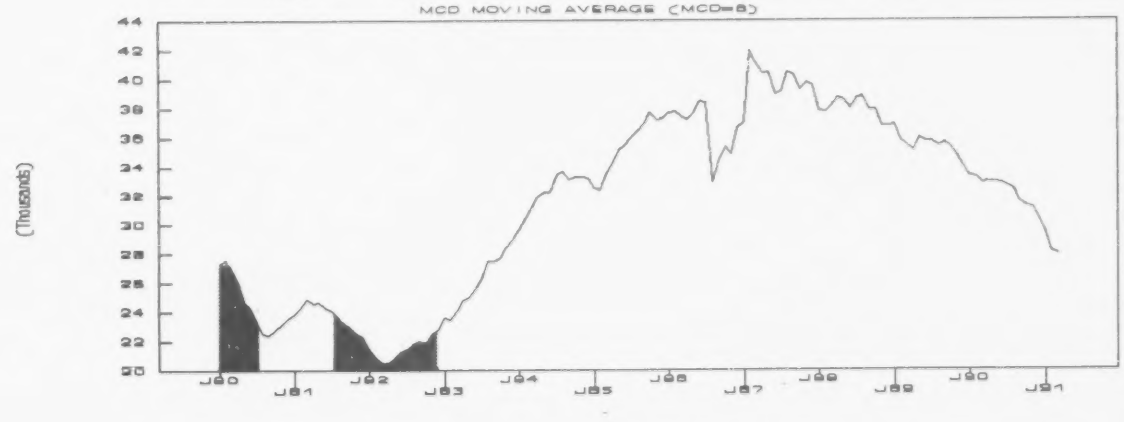
NEW BUSINESS INCORPORATIONS



VALUATION OF BUILDING PERMITS



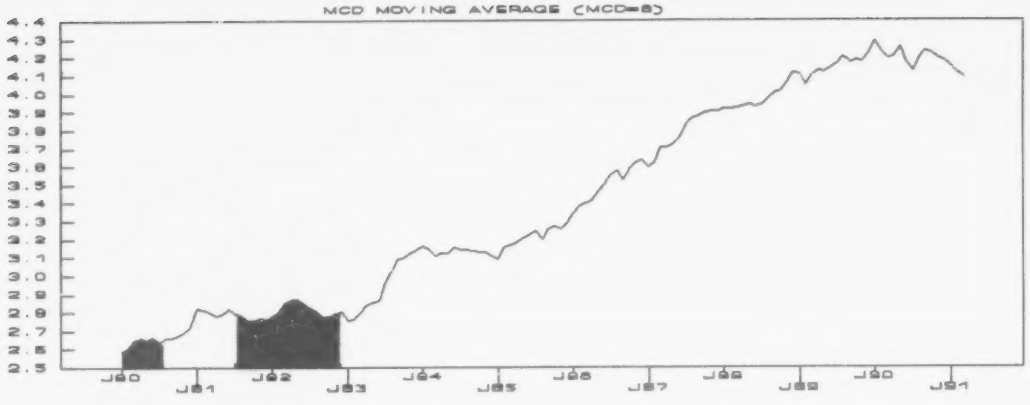
NEW VEHICLE REGISTRATIONS



ELECTRICAL POWER SALES

MCD MOVING AVERAGE (MCD=6)

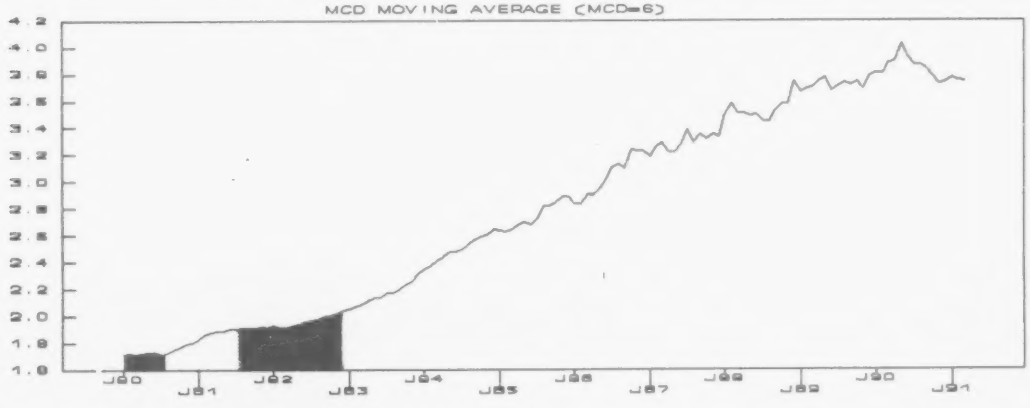
BILLIONS OF KWH



TAXABLE RETAIL SALES

MCD MOVING AVERAGE (MCD=6)

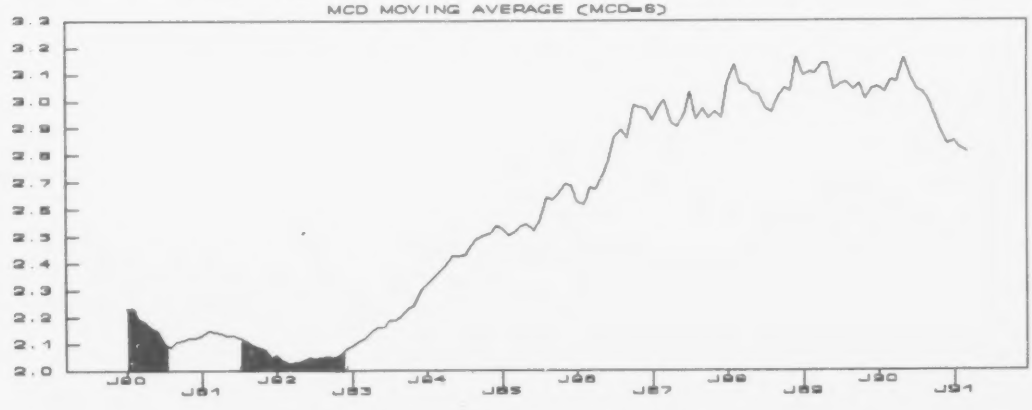
BILLIONS OF DOLLARS



TAXABLE RETAIL SALES/CPI

MCD MOVING AVERAGE (MCD=6)

1982-84 DOLLARS (BILLIONS)



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ECONOMIC INDICATORS

2nd Quarter 1991 Data

Volume 23 No. 2

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Virginia Employment Commission

FOREWORD

This publication is designed to depict the movement of Virginia's key economic indicators in graphic and tabular form with accompanying narrative analysis.

We welcome any comments, suggestions, or questions concerning Virginia Economic Indicators. Please address your comments to: Dolores A. Esser, Director, Economic Information Services Division, Virginia Employment Commission, P. O. Box 1358, Richmond, Virginia 23211. For additional information or explanation of the contents of this document, you may contact the Economic/Operations Research section at (804) 786-5669.

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ECONOMIC OUTLOOK - U.S.

VOL. 23, NO. 2 **SECOND QUARTER DATA**

Forecast Update

- The Economic Indicators' projection of the U.S. economy's growth in Second Quarter 1991 was nearly on target. Gross National Product (GNP) was forecasted last issue to experience close to zero second quarter growth.
  - The preliminary GNP growth estimate for Second Quarter 1991 by the U.S. Department of Commerce was +0.4 percent, indicating the recession ended about May.
  - Later figures out of Commerce portray Second Quarter 1991 as being negative at -0.5 percent growth and that the recession was still with us.
- The 1990-91 recession, although moderate (at least by 1975 and 1981-82 standards), seems to be hanging around longer than most forecasters had expected--sort of like a person getting over a cold that he or she cannot quite shake.
- Why has this recession proven as tenacious as it has?
  - The combination of a recession with a brief, successful war superimposed upon it has confounded most computer econometric models. Models often do not perform well when there is no previous experience to go by, and the past year has presented somewhat uncharted waters.
  - Unlike past recessions, there, as yet, has not emerged any strong driving force to pull the economy out of recession. (Examples would be: (1) the across-the-board spectacular new car models in 1955 that produced record car sales and propelled the economy out of the 1954 post-Korean war recession or (2) tax cuts and defense spending that helped end the 1981-82 recession.)
  - Briefly, it looked as if a renewed wave of consumer confidence at the end of the Persian Gulf war was going to bring a speedy end to this recession--but that hope faded quickly.
  - Government fiscal policies have played a major role in ending recessions in the past--but it looks like the government will have to sit this one out.
    - Because of the federal deficit and the phasing-down of defense activities with the end of the Cold War, federal spending will be a negative rather than a positive force.
    - State and local government spending has traditionally helped out in recessions, but these governing bodies are having to try to fill the gaps left by diminished federal funds and most of them are also having serious budget shortfalls of their own.

- It appears in the summer and early fall of 1991 that the economy is just barely inching along, probably just off the bottom.

- Evidence still points to a strengthening of the economy in the last half of 1991 in spite of the recovery's anemic start.

  - The recession has wrung inflation out of the economy. The Consumer Price Index (CPI) for all urban consumers only grew at a 3.6 percent annual rate in August, down significantly from the 6.0 percent plus level of last fall and winter.

  - Federal Reserve policy should remain accommodative, at least through the remainder of 1991, as inflation worries have diminished and the Fed's main concern will be to prevent the still wobbly economy from falling back into recession.

  - A favorable interest rate environment should entice renewed consumption on the part of consumers and investment on the part of business.

  - Lean inventories, resulting from the large liquidations during the past three quarters, have now set the stage for modest employment expansion. Manufacturers have resumed steadier work schedules, after this summer's vacation period, than at any time in the past year. This summer also has seen the average workweek climb back above the 40-hour mark. Steadier earnings and reduced fears of layoffs will bolster consumer confidence.

  - Because the recession has weeded out the least productive plants and workers, productivity rises in the early stages of recovery. Improved productivity will spell higher profits, which will in turn encourage business investment in new plants and equipment to take advantage of cost-saving technologies.

  - Car sales should pick up with the introduction of the 1992 models. In addition to some attractive new vehicles that are coming to market, a lot of pent-up consumer demand has been building in the economy. Cars sold in the record 1985-87 selling period have now accumulated enough mileage to be ready for trade-in. Accommodative financing rates should help to move cars. Already, there are way fewer left-over 1991 models in dealers' inventories than usual at new model introductory time.

  - The currently favorable interest rates have made housing more affordable, and housing sales should resume the up-trend started this spring after the momentary pause in August.

- All of the above should generate a modest rebound with GNP growing about 1.5 percent in Third Quarter 1991. By 1992, the economy should be growing close to 3.0 percent--an improvement over the present, but still below the 4.6 percent average growth rate in the initial stage of post-war recoveries. Tempering the recovery will be a higher dollar, which will weaken exports; cuts in defense spending; and slowly rising wages.

William F. Mezger
Economist

HIGHLIGHTS
VIRGINIA ECONOMIC INDICATORS
Second Quarter 1991

- Buoyed by the news of the successful conclusion of the Persian Gulf war, most of the fifteen series used to register the pulse of the Virginia economy showed signs of recovery early in Second Quarter 1991. A somewhat flat employment picture and a June turndown of several of the business-related series soon proved the April and May numbers overly optimistic. Still, a majority of the series ended Second Quarter 1991 at improved levels over First Quarter 1991.

- Three series recorded all-time highs in Second Quarter 1991.

  - Average hourly production earnings reached a record $10.45 in April.

  - Average weekly factory wages advanced to new heights of $418.39 in May and $423.16 in June.

  - Hot, dry weather early in the season pushed electronic power sales to a never-before-recorded 4,753.7 million kilowatt hours in June.

- The Consumer Price Index for the United States for All Urban Consumers (CPI-U) averaged 135.6 (1982-84=100) in Second Quarter 1991. This was 0.6 percent higher than the 134.8 average of First Quarter 1991. The Second Quarter 1991 average was 4.9 percent higher than the Second Quarter 1990 average. This was faster than the 4.5 percent second quarter-to-second quarter rise recorded between 1989 and 1990. In the past year, there was rapid price inflation in Third and Fourth Quarters 1990 caused by escalating fuel prices related to the Persian Gulf crisis. By Second Quarter 1991, inflation had been slowed by the recession and stabilized fuel prices in the aftermath of the Persian Gulf war.

- According to the Bureau of Labor Statistics (BLS) of the U.S. Department of Labor, productivity increased in the United States at a 1.6 percent annual rate during Second Quarter 1991 in the business sector, as output rose 1.2 percent and hours of all persons engaged in the sector declined 0.5 percent (seasonally adjusted annual rates). Output increased for the first time since Third Quarter 1990, while hours declined for the fifth quarter in succession. Employment fell 1.2 percent, and average weekly hours rose 0.8 percent for the first lengthening of the workweek since Third Quarter 1989. During First Quarter 1991, productivity had been unchanged.

- According to the Energy Information Administration of the U.S. Department of Energy, Virginia coal production in the first six months of 1991 was 22,145,000 short tons mined, down 10.1 percent from the record 24,624,000 short tons mined in the first half of 1990. A mild winter and lower oil prices in 1991 were hurting the demand for coal.

VIRGINIA INDICATORS
Second Quarter Data

The fifteen series used to measure the Virginia economy appeared to begin recovery from recession early in Second Quarter 1991 with the wave of euphoria that swept the country following the United States' successful conclusion of the 45-day Persian Gulf war. By June much of this optimism had evaporated, particularly among the business-related series. Still, most series registered marginally healthier levels at the end of Second Quarter 1991.

April was the quarter's best month with eleven series up, two unchanged, and two down. May had only a marginally poorer showing with ten series up, two unchanged, and three down. The performance deteriorated to a negative stance in June with five series up, four unchanged, and six down. June's weaker performance could be traced largely to a general turndown in the business-related indicators and a lack of hiring activity.

The six-month moving average of rising indicators (page 18) serves to illustrate the quarter's performance. The moving average enhances analysis because it smoothes out much of the irregularity present in many of the individual series.

Some records were broken in Second Quarter 1991, mostly in the production wage series. Average hourly earnings were at an all-time record of $10.45 in April, and average weekly earnings forged ahead to new highs of $418.39 in May and $423.16 in June. Record heat this spring pushed electric power sales to a new high of 4,753.7 million kilowatt hours in June.

In Virginia during spring and summer 1991, the number of workers involved in new mass short-term furloughs for inventory adjustment in textiles, household items, and auto supplies was significantly diminished. White-collar layoffs of a permanent nature took place in banking, transportation, and trade because of mergers, buyouts, and bankruptcies. Construction employment has had its usual seasonal increase, but statewide it peaked out this summer at around 166,000 jobs versus the record 200,000+ level of 1989. While construction levels are down, they are still well above the 110,000 summer 1982 recession low.

Both the large Richmond-Petersburg and Hampton Roads metro areas are experiencing sluggish job markets. The Richmond area is sluggish because of a lack of hiring in the normally robust finance, trade, transportation, and government sectors. The Hampton Roads' economy (which as yet has not recovered the 5,000 jobs lost when operations Desert Shield and Desert Storm occurred) is slow because of fewer tourists from the recession-ravaged Northeast and apprehensions over possible future defense reductions. Because this has been more of a white-collar recession, Roanoke, Lynchburg, and Southwest Virginia (with their significant manufacturing bases) have been less affected than usual by the downturn. Layoffs have slowed in the Southside Textile and Furniture belt, and the auto-related industries along Interstate 81 are starting to call back workers. The Bristol-Wytheville portion of the state, which sank into recession in 1989 and 1990, is currently the only region that is showing positive employment growth.

Optimism Following Persian Gulf Victory Fades by June

The two employment series remained pretty much static in Second Quarter 1991, with the only noticeable changes being a 3,200 or 0.8 percent April gain in manufacturing as workers were recalled to jobs in the auto supply industries, textiles, and building materials.

Nonagricultural employment remained within several thousand jobs of the 2,860,000 mark average for the quarter. Both nonfarm employment and manufacturing showed the impact of the recession, being down at the end of the quarter 1.7 percent and 3.8 percent, respectively, from one-year earlier levels.

The four unemployment-related series were partly positive and partly negative this quarter as compared with their largely negative stance in the first quarter. Unemployment transactions were beginning to diminish from the high level of first quarter activity. The total unemployment rate fell to 5.5 percent in April, but then recorded slight increases in both May and June. New claims for unemployment benefits fell each month of the quarter until at 7,964 in June they were almost one-half the March level. The insured unemployment rate was unchanged at 2.0 percent in April, fell to 1.5 percent in May, but then climbed back to 1.8 percent in June. Final payments for unemployment benefits increased sharply in April and May before falling slightly in June. At 4,228 in May, final payments were the highest in eight years, since June 1983. Final payments were high in second quarter because people furloughed in large numbers last fall at the start of the recession were now exhausting their maximum six months of benefits.

After stagnating in first quarter, the four factory production worker earnings series began to inch forward this quarter. The length of the average factory workweek increased each month for a total 1.0-hour gain from the end of March to the end of June and at 40.6 hours in June was back over the 40.0-hour norm. Average hourly earnings grew to a record $10.45 in April before falling back to $10.39 for both May and June. Average manhours worked increased in April, lost some of the ground gained in May, then showed a respectable increase to 12,534,200 in June. Average weekly factory earnings increased each month of the quarter, setting new records of $418.39 in May and $423.16 in June.

The five business-related series were nearly all positive in April and May before turning negative in June. New business incorporations were up in April and May. After reaching 1,543 in May, incorporations fell to 1,393 in June. The volatile valuation of building permits issued nearly doubled from March's eight-year low of $64.0 million to $126.6 million in May, then fell back to $87.0 million in June. New motor vehicle registrations increased in April and May before falling back to 27,177 in June, only slightly higher than the March level. Electric power sales increased each month of the quarter, finishing at a record 4,753.7 million kilowatt hours in June. Record-breaking hot, dry weather for so early in the season kept air conditioners humming. Taxable retail sales fell in April, more than made up the loss in May; then dropped to a 19-month low of $3,480.2 million in June.

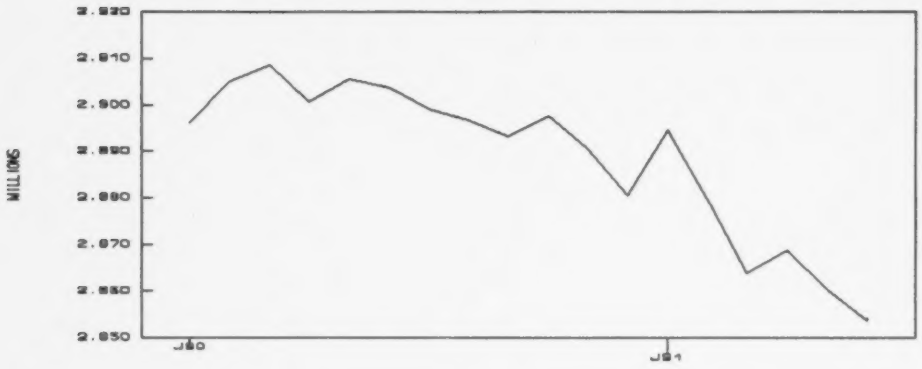
William F. Mezger
Economist

EMPLOYMENT INDICATORS
January 1990 to June 1991

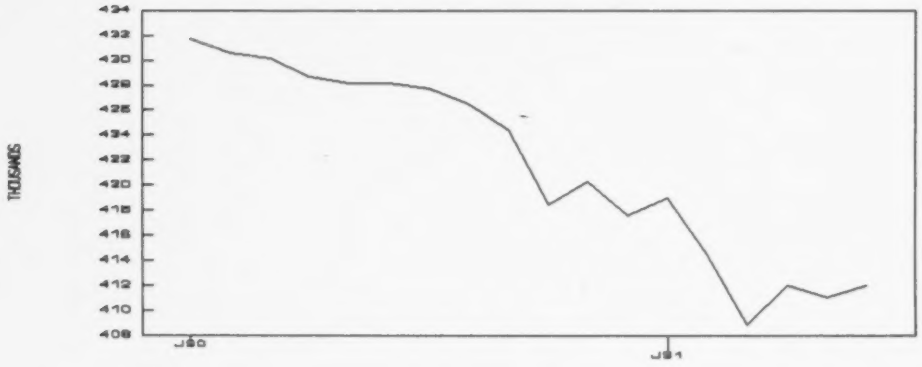
	Nonagricultural Wage and Salary Employment* (Thousands)		Manufacturing Employment* (Thousands)		Total Unemployment Rate* (Percent)	
1990	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	2,846.7	2,896.3	428.6	431.7	4.4	4.0
February	2,858.0	2,905.0	427.9	430.5	4.3	4.0
March	2,881.9	2,908.7	427.8	430.2	4.0	3.9
April	2,889.6	2,900.6	426.5	428.7	3.6	3.7
May	2,917.2	2,905.6	426.9	428.1	4.0	4.2
June	2,939.6	2,903.7	429.7	428.1	4.4	4.4
July	2,905.4	2,899.0	427.5	427.7	4.2	4.6
August	2,898.7	2,896.6	428.0	426.4	4.2	4.4
September	2,911.0	2,893.1	427.0	424.4	4.4	4.4
October	2,908.3	2,897.6	420.7	418.4	4.3	4.5
November	2,911.9	2,890.5	422.2	420.3	4.6	4.6
December	2,903.1	2,880.5	418.3	417.6	4.9	4.8
1991						
January	2,844.9	2,894.6	416.0	419.0	5.9	5.3
February	2,833.8	2,879.8	412.0	414.5	6.5	6.0
March	2,837.9	2,863.8	406.6	408.8	6.2	6.1
April	2,857.8	2,868.8	409.9	412.0	5.4	5.5
May	2,871.5	2,860.3	409.9	411.0	5.5	5.8
June	2,889.0	2,853.7	413.6	412.0	6.0	6.0

*These series have been adjusted to First Quarter 1990 benchmarks.

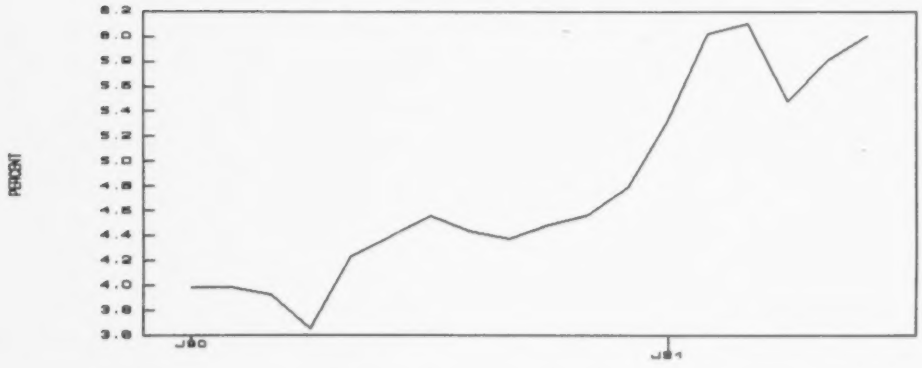
NONAG W & S EMPLOYMENT



MANUFACTURING EMPLOYMENT



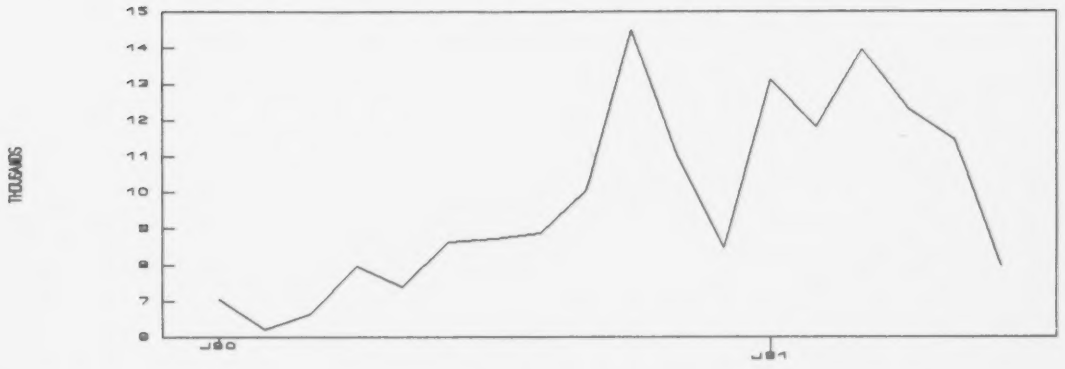
TOTAL UNEMPLOYMENT RATE



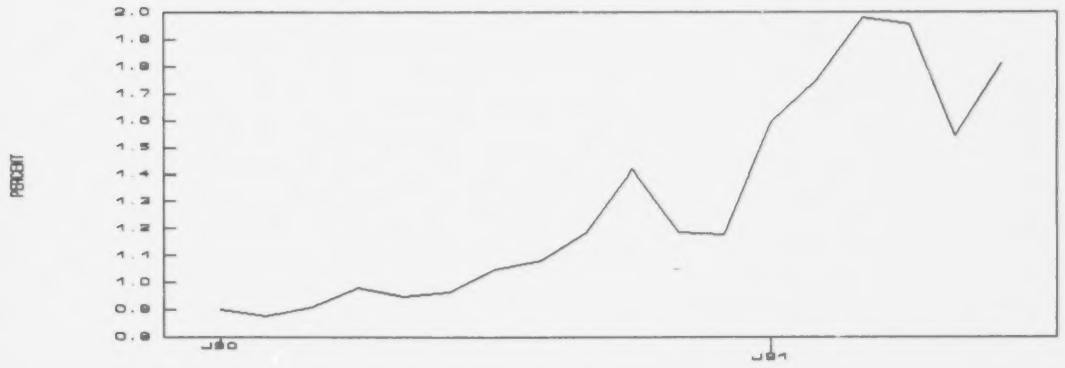
UNEMPLOYMENT INSURANCE INDICATORS
January 1990 to June 1991

	Average Weekly Initial Claims		Average Weekly Insured Unemployment (Percent)		Unemployment Insurance Final Payments	
1990	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	11,446	7,050	1.3	0.9	1,789	1,789
February	6,330	6,206	1.2	0.9	1,499	1,519
March	5,887	6,647	1.1	0.9	1,798	1,474
April	6,345	7,947	1.0	1.0	1,965	1,539
May	5,021	7,385	0.8	0.9	2,027	1,736
June	8,007	8,618	0.8	1.0	1,848	1,709
July	8,985	8,724	1.0	1.0	2,045	1,906
August	5,787	8,848	0.9	1.1	1,907	1,996
September	6,118	10,038	0.9	1.2	1,585	1,918
October	10,138	14,498	1.0	1.4	1,793	2,213
November	11,029	10,982	1.0	1.2	1,727	2,244
December	17,611	8,478	1.4	1.2	1,772	2,137
1991						
January	21,322	13,109	2.3	1.6	2,746	2,760
February	11,970	11,799	2.4	1.8	2,989	3,019
March	12,353	13,959	2.4	2.0	3,993	3,264
April	9,782	12,303	2.0	2.0	4,629	3,657
May	7,777	11,463	1.3	1.5	4,939	4,228
June	7,413	7,964	1.5	1.8	4,303	3,971

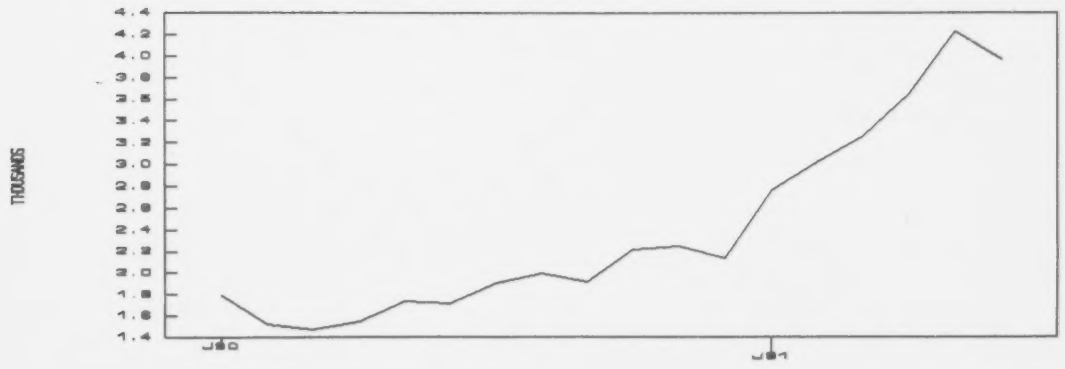
AVG. WEEKLY INITIAL CLAIMS



INSURED UNEMPLOYMENT RATE



U.I. FINAL PAYMENTS

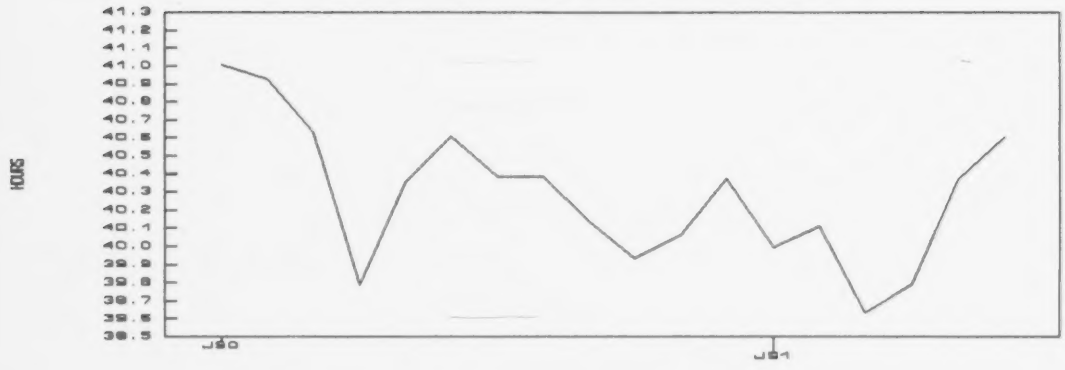


MANUFACTURING PRODUCTION WORKER INDICATORS
January 1990 to June 1991

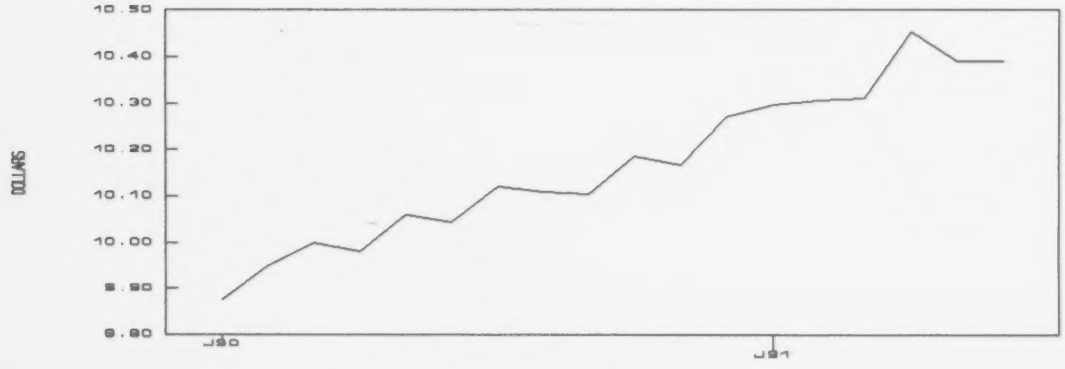
	Average Weekly Hours*		Average Hourly Earnings* (Dollars)		Deflated Average Hourly Earnings* (1982-84 Dollars)	
1990	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	40.7	41.0	9.86	9.87	7.83	7.83
February	40.2	40.9	9.90	9.95	7.83	7.85
March	40.4	40.6	9.97	10.00	7.84	7.83
April	39.6	39.8	9.93	9.98	7.80	7.85
May	40.2	40.4	10.02	10.06	7.81	7.86
June	40.8	40.6	10.06	10.04	7.82	7.82
July	40.1	40.4	10.12	10.12	7.86	7.86
August	40.2	40.4	10.11	10.11	7.78	7.78
September	40.6	40.1	10.14	10.10	7.73	7.72
October	40.1	39.9	10.20	10.19	7.73	7.74
November	40.7	40.1	10.24	10.17	7.75	7.70
December	40.9	40.4	10.31	10.27	7.80	7.75
1991						
January	39.7	40.0	10.28	10.30	7.74	7.74
February	39.4	40.1	10.25	10.31	7.72	7.74
March	39.4	39.6	10.28	10.31	7.73	7.73
April	39.6	39.8	10.40	10.45	7.80	7.85
May	40.2	40.4	10.35	10.39	7.74	7.79
June	40.8	40.6	10.41	10.39	7.76	7.76

*These series have been adjusted to First Quarter 1990 benchmarks.

AVERAGE WEEKLY HOURS



AVERAGE HOURLY EARNINGS



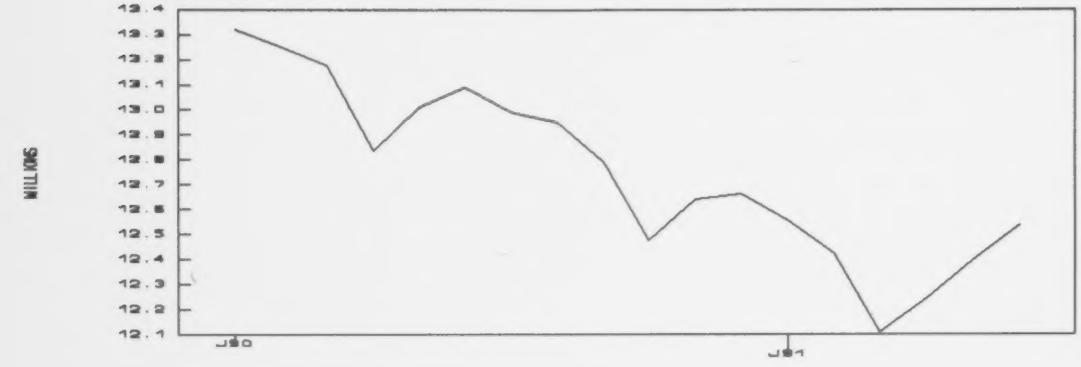
AVG. HOURLY EARNINGS/CPI

PRODUCTION WORKER INDICATORS (CONTINUED)
January 1990 to June 1991

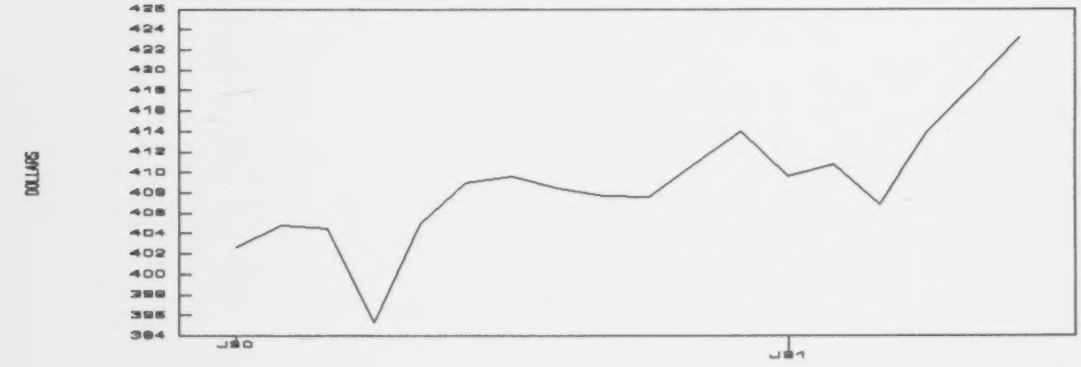
	Average Manhours* (Thousands)		Average Weekly Earnings* (Dollars)		Deflated Average Weekly Earnings* (1982-84 Dollars)	
1990	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	13,154.2	13,320.2	401.30	402.63	318.75	319.71
February	12,960.5	13,251.5	397.98	404.83	314.86	319.28
March	13,020.9	13,176.6	402.79	404.53	316.91	317.82
April	12,715.6	12,835.1	393.23	395.25	308.90	309.99
May	12,920.3	13,009.3	402.80	404.95	313.95	316.17
June	13,190.6	13,088.0	410.45	408.99	318.92	318.07
July	12,872.1	12,988.3	405.81	409.58	315.31	319.13
August	12,924.3	12,949.3	405.42	408.40	312.10	314.41
September	13,020.4	12,794.6	411.68	407.65	314.02	311.72
October	12,635.5	12,475.1	409.02	407.61	310.10	309.86
November	12,889.7	12,639.4	416.77	410.91	315.26	310.71
December	12,830.3	12,662.0	421.68	414.04	318.97	311.90
1991						
January	12,396.7	12,552.7	408.12	409.57	307.32	308.28
February	12,149.8	12,424.0	403.85	410.80	304.10	308.37
March	11,962.8	12,107.6	405.03	406.81	304.53	305.49
April	12,130.1	12,243.6	411.84	413.91	308.96	310.12
May	12,310.2	12,396.9	416.07	418.39	310.96	313.25
June	12,634.6	12,534.2	424.73	423.16	316.73	315.82

*These series have been adjusted to First Quarter 1990 benchmarks.

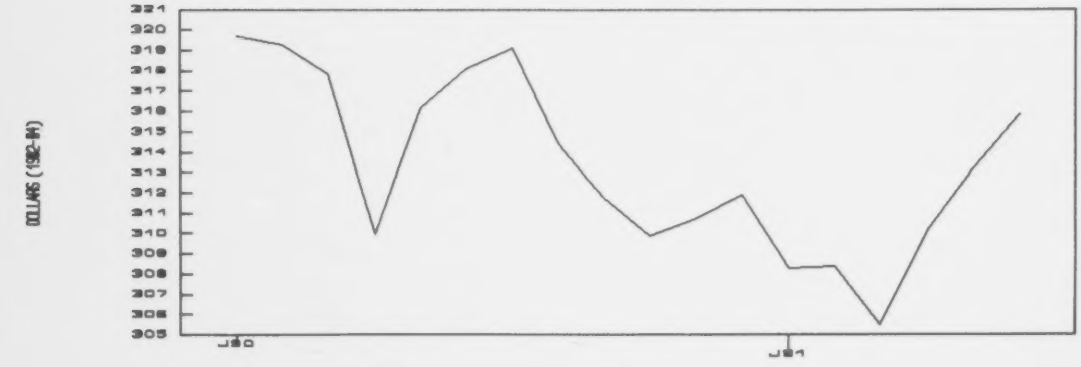
AVERAGE MANHOURS



AVERAGE WEEKLY EARNINGS



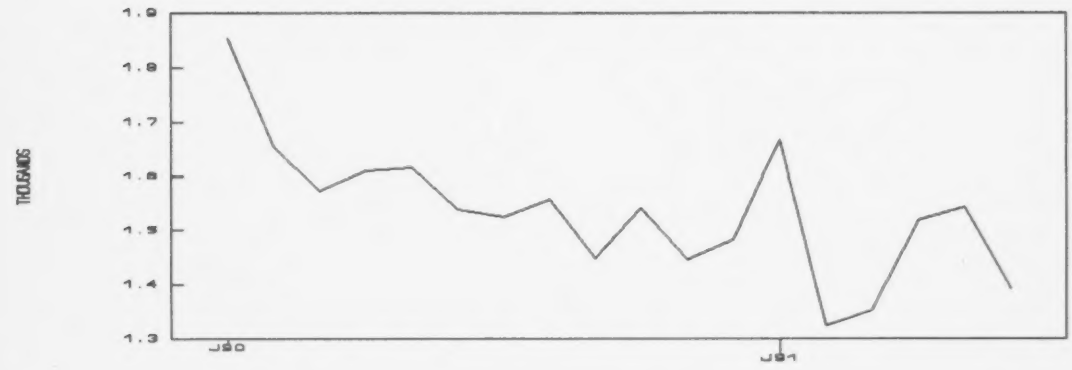
AVG. WEEKLY EARNINGS/CPI



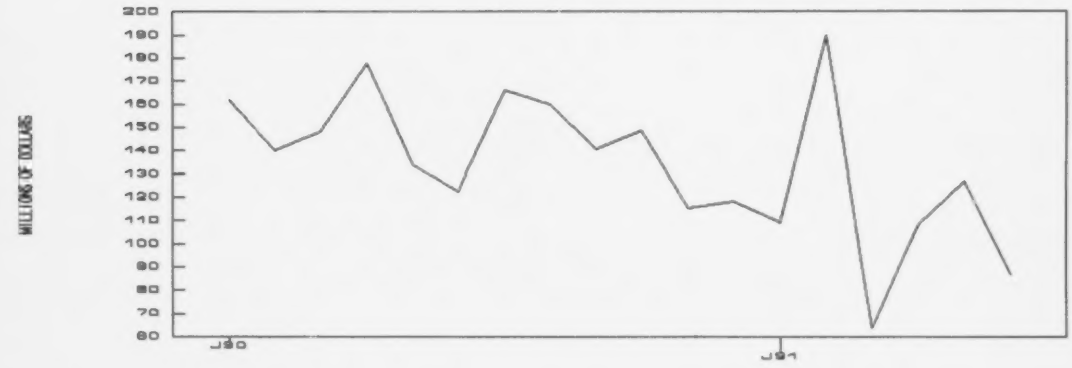
BUSINESS INDICATORS
January 1990 to June 1991

	New Business Incorporations		Valuation of Building Permits ($ Millions)		New Vehicle Registrations	
1990	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
January	1,732	1,854	139.7	162.0	32,551	32,690
February	1,684	1,656	107.2	140.4	29,031	33,153
March	1,827	1,572	144.0	148.1	34,317	33,224
April	1,618	1,611	163.0	177.7	36,359	34,063
May	1,751	1,618	136.2	133.9	36,933	33,210
June	1,578	1,539	162.3	122.6	34,670	30,688
July	1,426	1,524	197.8	166.1	34,817	31,203
August	1,618	1,556	186.7	160.1	33,428	32,464
September	1,319	1,448	147.8	140.8	29,640	27,924
October	1,512	1,542	149.7	148.8	34,159	32,041
November	1,273	1,448	100.3	115.2	26,012	32,392
December	1,524	1,484	100.9	117.9	18,695	26,457
1991						
January	1,557	1,667	94.0	109.4	24,994	25,149
February	1,348	1,324	146.2	190.1	21,477	24,476
March	1,573	1,351	62.0	64.0	28,031	27,118
April	1,517	1,518	98.9	108.3	31,348	29,373
May	1,677	1,543	128.0	126.6	33,207	29,805
June	1,430	1,393	114.5	87.0	30,648	27,177

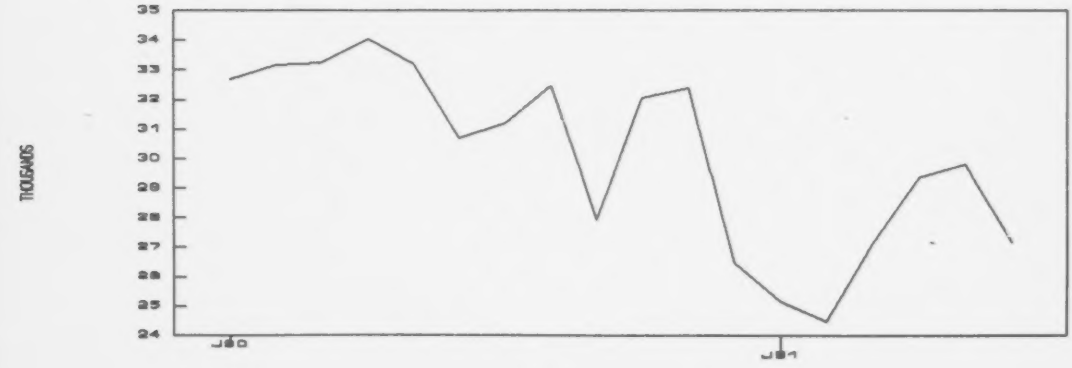
NEW BUSINESS INCORPORATIONS



VALUATION OF BUILDING PERMITS



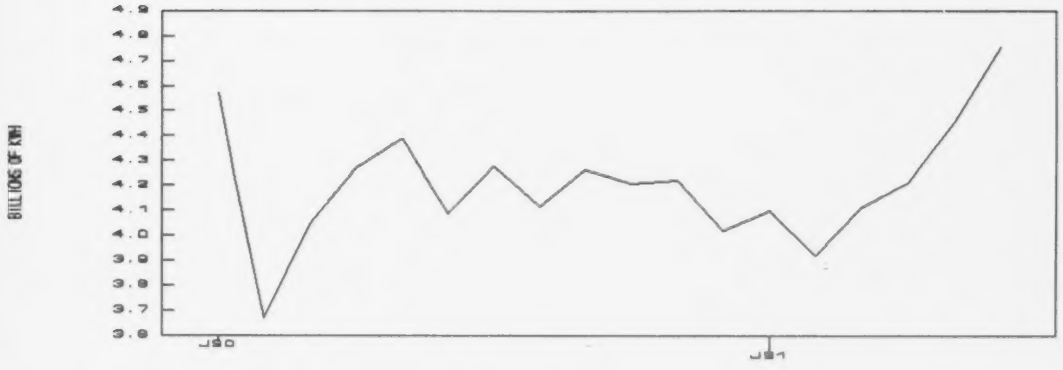
NEW VEHICLE REGISTRATIONS



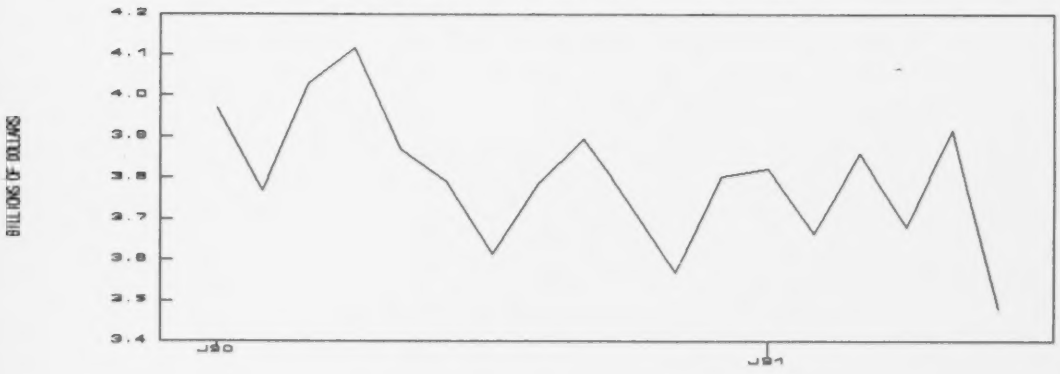
BUSINESS INDICATORS (CONTINUED)
January 1990 to June 1991

	Electrical Power Sales (Millions of KWH)		Taxable Retail Sales (Millions of Dollars)	
1990	Unadjusted	Adjusted	Unadjusted	Adjusted
January	5,261.2	4,572.5	3,087.1	3,968.1
February	4,085.0	3,668.0	3,825.9	3,768.1
March	4,114.0	4,045.4	3,633.6	4,027.4
April	3,856.4	4,271.3	4,054.1	4,116.4
May	3,657.5	4,389.9	3,887.3	3,867.7
June	3,890.4	4,090.1	3,959.7	3,790.2
July	4,754.4	4,277.3	3,822.7	3,612.5
August	4,614.0	4,116.4	3,702.6	3,785.5
September	4,478.6	4,264.7	4,031.6	3,894.0
October	3,667.1	4,204.1	3,661.3	3,736.7
November	3,667.2	4,220.8	3,445.8	3,567.5
December	4,046.2	4,017.7	4,779.3	3,804.3
1991				
January	4,711.5	4,096.3	2,978.1	3,821.9
February	4,361.1	3,917.3	3,722.4	3,665.6
March	4,175.6	4,111.1	3,469.6	3,858.9
April	3,807.4	4,211.1	3,634.8	3,680.6
May	3,712.5	4,453.2	3,910.7	3,914.4
June	4,516.5	4,753.7	3,633.9	3,480.2

ELECTRICAL POWER SALES



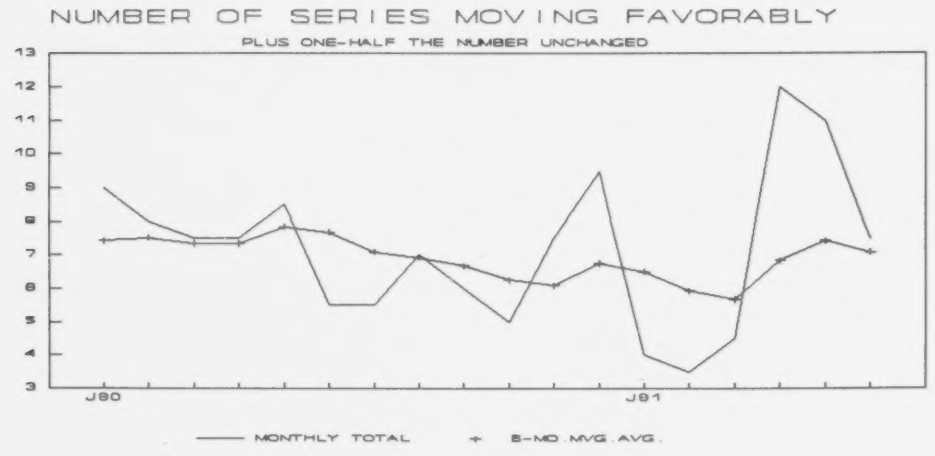
TAXABLE RETAIL SALES



DATA SUMMARY JUNE 1991 (SEASONALLY ADJUSTED DATA)	June 1991	May 1991	June 1990	Percent & Direction** of Change May '91- June '91	 June '90- June '91
EMPLOYMENT					
*Nonag Wage & Salary Emp (000)	2,853.7	2,860.3	2,903.7	- 0.2 (0)	- 1.7 (-)
*Manufacturing Employment (000)	412.0	411.0	428.1	0.2 (0)	- 3.8 (-)
*Total Unemployment Rate	6.0	5.8	4.4	(-)	(-)
UNEMPLOYMENT INSURANCE					
Average Weekly Initial Claims	7,964	11,463	8,618	-30.5 (+)	- 7.6 (+)
Insured Unemployment Rate (%)	1.8	1.5	1.0	(-)	(-)
Final Payments	3,971	4,228	1,709	- 6.1 (+)	132.4 (-)
MANUFACTURING PRODUCTION WORKERS					
*Average Weekly Hours	40.6	40.4	40.6	0.5 (0)	0.0 (0)
*Average Manhours (000)	12,534	12,397	13,088	1.1 (+)	- 4.2 (-)
*Average Hourly Earnings ($)	10.39	10.39	10.04	0.0 (0)	3.5 (+)
*Average Weekly Earnings ($)	423.16	418.39	408.99	1.1 (+)	3.5 (+)
BUSINESS					
New Business Incorporations	1,393	1,543	1,539	- 9.7 (-)	- 9.5 (-)
Valuation of Bldg Permits ($M)	87.0	126.6	122.6	-31.3 (-)	- 29.0 (-)
New Vehicle Registrations	27,177	29,805	30,688	- 8.8 (-)	- 11.4 (-)
Electrical Pwr Sales (M of KWH)	4,754	4,453	4,090	6.7 (+)	16.2 (+)
Taxable Retail Sales ($M)	3,480	3,914	3,790	-11.1 (-)	- 8.2 (-)

* Revised to First Quarter 1990 benchmarks.
** (+) Favorable, (-) Not Favorable, (0) Change less than 0.5%.

SUMMARY



DATA SUMMARY MAY 1991 (SEASONALLY ADJUSTED DATA)	May 1991	Apr. 1991	May 1990	Percent & Direction** of Change Apr. '91- May. '91	 May. '90- May. '91
EMPLOYMENT					
*Nonag Wage & Salary Emp (000)	2,860.3	2,868.8	2,905.6	- 0.3 (0)	- 1.6 (-)
*Manufacturing Employment (000)	411.0	412.0	428.1	- 0.2 (0)	- 4.0 (-)
*Total Unemployment Rate	5.8	5.5	4.2	(-)	(-)
UNEMPLOYMENT INSURANCE					
Average Weekly Initial Claims	11,463	12,303	7,385	- 6.8 (+)	55.2 (-)
Insured Unemployment Rate (%)	1.5	2.0	0.9	(+)	(-)
Final Payments	4,228	3,657	1,736	15.6 (-)	143.5 (-)
MANUFACTURING PRODUCTION WORKERS					
*Average Weekly Hours	40.4	39.8	40.4	1.5 (+)	0.0 (0)
*Average Manhours (000)	12,397	12,244	13,009	1.3 (+)	- 4.7 (-)
*Average Hourly Earnings ($)	10.39	10.45	10.06	- 0.6 (-)	3.3 (+)
*Average Weekly Earnings ($)	418.39	413.91	404.95	1.1 (+)	3.3 (+)
BUSINESS					
New Business Incorporations	1,543	1,518	1,618	1.6 (+)	- 4.6 (-)
Valuation of Bldg Permits ($M)	126.6	108.3	133.9	16.9 (+)	- 5.5 (-)
New Vehicle Registrations	29,805	29,373	33,210	1.5 (+)	- 10.3 (-)
Electrical Pwr Sales (M of KWH)	4,453	4,211	4,390	5.7 (+)	1.4 (+)
Taxable Retail Sales ($M)	3,914	3,681	3,868	6.4 (+)	1.2 (+)

DATA SUMMARY APRIL 1991 (SEASONALLY ADJUSTED DATA)	Apr. 1991	Mar. 1991	Apr. 1990	Percent & Direction** of Change Mar. '91- Apr. '91	 Apr. '90- Apr. '91
EMPLOYMENT					
*Nonag Wage & Salary Emp (000)	2,868.8	2,863.8	2,900.6	0.2 (0)	- 1.1 (-)
*Manufacturing Employment (000)	412.0	408.8	428.7	0.8 (+)	- 3.9 (-)
*Total Unemployment Rate	5.5	6.1	3.7	(+)	(-)
UNEMPLOYMENT INSURANCE					
Average Weekly Initial Claims	12,303	13,959	7,947	-11.9 (+)	54.8 (-)
Insured Unemployment Rate (%)	2.0	2.0	1.0	(0)	(-)
Final Payments	3,657	3,264	1,539	12.0 (-)	137.6 (-)
MANUFACTURING PRODUCTION WORKERS					
*Average Weekly Hours	39.8	39.6	39.8	0.5 (+)	0.0 (0)
*Average Manhours (000)	12,244	12,108	12,835	1.1 (+)	- 4.6 (-)
*Average Hourly Earnings ($)	10.45	10.31	9.98	1.4 (+)	4.7 (+)
*Average Weekly Earnings ($)	413.91	406.81	395.25	1.7 (+)	4.7 (+)
BUSINESS					
New Business Incorporations	1,518	1,351	1,611	12.4 (+)	- 5.8 (-)
Valuation of Bldg Permits ($M)	108.3	64.0	177.7	69.2 (+)	- 39.1 (-)
New Vehicle Registrations	29,373	27,118	34,063	8.3 (+)	- 13.8 (-)
Electrical Pwr Sales (M of KWH)	4,211	4,111	4,271	2.4 (+)	- 1.4 (-)
Taxable Retail Sales ($M)	3,681	3,859	4,116	- 4.6 (-)	- 10.6 (-)

* Revised to First Quarter 1990 benchmarks.

** (+) Favorable, (-) Not Favorable, (0) Change less than 0.5%.

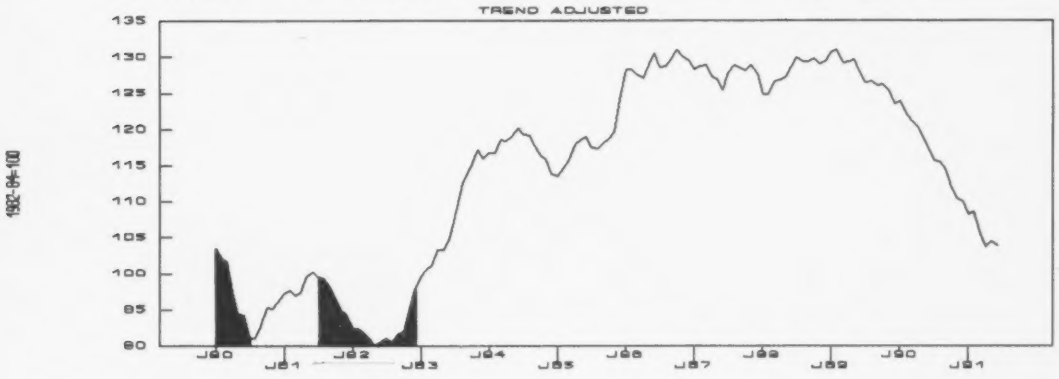
THE VIRGINIA LEADING AND COINCIDENT INDEXES

1990	Leading Percent (82-84=100)	Monthly Percent Change	Quarterly Percent Change	Coincident Index (82-84=100)	Monthly Percent Change	Quarterly Percent Change
January	123.92	+0.3		124.58	+0.7	
February	122.18	-1.4	-2.0	124.87	+0.2	+0.4
March	121.01	-0.9		124.85	-0.0	
April	120.26	-0.6		125.49	+0.5	
May	118.96	-1.0	-2.9	125.09	-0.3	+0.0
June	117.22	-1.4		123.79	-1.0	
July	115.60	-1.3		121.89	-1.5	
August	115.50	-0.0	-3.0	121.37	-0.4	-2.6
September	114.34	-1.0		121.21	-0.1	
October	112.05	-2.0		121.24	+0.0	
November	110.40	-1.4	-3.7	120.68	-0.4	-0.7
December	110.01	-0.3		119.67	-0.8	
1991						
January	108.17	-1.6		118.41	-1.0	
February	108.48	+0.2	-3.1	116.13	-1.9	-3.5
March	105.44	-2.8		114.37	-1.5	
April	103.69	-1.6		114.40	+0.0	
May	104.44	+0.7	-3.1	114.63	+0.1	-1.5
June	103.79	-0.6		114.62	-0.0	

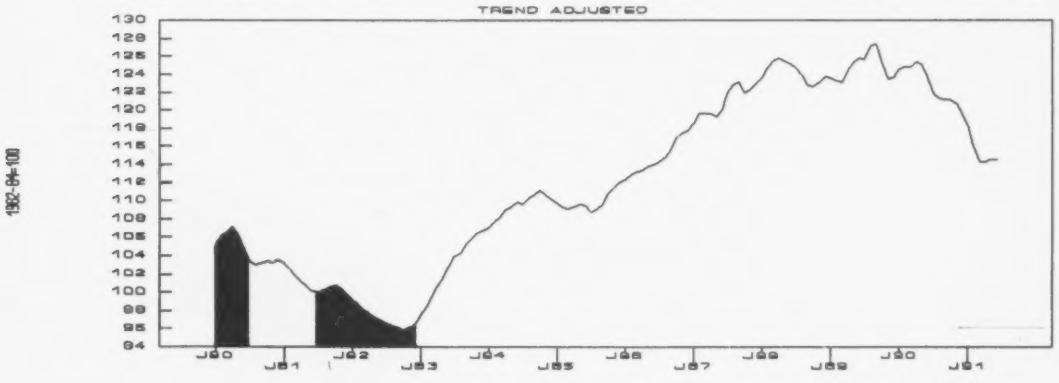
The Virginia Leading Index is adjusted to a 1982-84 base and includes Average Weekly Hours for Production Workers; New Businesses; Valuation of Building Permits, deflated to 1982-84 dollars; and Average Weekly Initial Claims. The Virginia Coincident Index includes Nonagricultural Wage and Salary Employment; Total Unemployment Rate; Taxable Retail Sales, deflated to 1982-84 dollars; and Average Hourly Earnings of Manufacturing Production Workers, deflated to 1982-84 dollars. The Coincident Index also uses a 1982-84 base. All series are adjusted for seasonality and month of cyclical dominance.

The Leading and Coincident Indexes continued to reflect the recession in Second Quarter 1991 although the Coincident Indexes showed improvement over First Quarter 1991.

VIRGINIA INDEX OF LEADING INDICATORS



VIRGINIA INDEX OF COINCIDENT INDICATORS



CHANGING EMPLOYMENT PATTERNS IN THE SOUTH HAMPTON ROADS ECONOMY[1]

Editor's Note: Economic Indicators is fortunate to have as its feature article for this issue, "Changing Employment Patterns in the South Hampton Roads Economy," by guest author, Dr. Ann Schwarz-Miller, associate professor of economics at Old Dominion University, 5115 Hampton Boulevard, Norfolk, Virginia 23529. Dr. Schwarz-Miller is an outstanding authority on the economy of the important South Hampton Roads region of Virginia. Dr. Schwarz-Miller looks at key economic changes in the region over the past three decades.

The growth of the South Hampton Roads area--both in population and the number of jobs--has been one of the cornerstones of Virginia's overall expansion in recent decades. The population of the five cities comprising the region (Chesapeake, Norfolk, Portsmouth, Suffolk, and Virginia Beach) increased from 622,500 in 1960 to 962,300 in 1990, with a gain of 166,800 in the last decade alone. Percentage gains in non-agricultural employment were even more significant, as the number of jobs more than doubled from 156,000 to 375,300 over the thirty-year period (see Tables 1 and 2 on page 23). At the same time, there were substantial differences in growth patterns within the region, leaving the current intraregional configuration of jobs and population markedly changed from earlier years. In this article, some of the most interesting of those changes are analyzed.

The city-by-city breakdown of population and employment data (also Tables 1 and 2, page 23) provides a good overview of the economic and demographic transformation of South Hampton Roads since 1960. At the outset of the thirty-year period, Norfolk, then Virginia's largest city, dominated the region, containing 49.0 percent of its population and 64.0 percent of non-agricultural jobs. Portsmouth was a fairly distant second, with 18.4 percent of regional population and 18.9 percent of employment. However, in the subsequent period, the populations of both of these older cities stagnated. Both had fewer residents in 1990 than in 1960, with Norfolk, in particular, suffering from a massive outmigration during the 1970s. The city of Virginia Beach, formally established in 1963, was the major recipient both of the flight to the suburbs and of net regional population growth, experiencing a spectacular 361 percent increase in residents between 1960 to 1990, from 85,200 to 393,100. It became the state's largest city in 1981. Chesapeake likewise experienced major population growth, especially in the 1980s, when it overtook Portsmouth as the third largest city in South Hampton Roads.

The regional pattern of employment growth reflected the changing population pattern, but by no means duplicated it exactly. Virginia Beach led South Hampton Roads with an increase in jobs from a mere 8,335 in 1960 to nearly 116,000 by 1990. Chesapeake posted the second greatest percentage increase, from 10,000 to 45,200 in the same period. However, Norfolk, in spite of its loss of population, also experienced steady and significant employment growth, from 99,900 jobs in 1960 to 151,900 jobs at the end of the thirty-year period, and easily retained its position as the region's largest employer and economic center. Employment in Portsmouth likewise

(Narrative continues on Page 24)

Table 1
South Hampton Roads Population for Selected Years

	Chesapeake	Norfolk	Portsmouth	Suffolk	Virginia Beach	Regional Total
1960	73,647	304,869	114,773	43,975	85,200	622,464
1970	89,580	307,951	110,963	45,024	172,106	725,624
1980	114,486	261,979	104,577	47,321	262,199	795,562
1990	151,976	261,229	103,907	52,141	393,069	962,322

Table 2
South Hampton Roads Civilian Non-Agricultural Employment for Selected Years

	Chesapeake	Norfolk	Portsmouth	Suffolk	Virginia Beach	Regional Total
1960	9,999	99,934	29,551	8,214	8,335	156,033
1970	14,744	123,383	37,166	6,798	23,121	205,212
1980	24,596	140,883	44,681	15,575	60,713	286,448
1990	45,232	151,938	46,956	15,274	115,898	375,298

Table 3
South Hampton Roads Private Non-Manufacturing Employment for Selected Years

	Chesapeake	Norfolk	Portsmouth	Suffolk	Virginia Beach	Regional Total
1960	2,966	64,105	12,777	4,425	4,533	88,806
1970	6,650	76,856	16,711	4,152	15,337	119,706
1980	14,121	90,695	20,574	7,261	43,433	176,084
1990	31,666	102,863	21,675	9,397	92,262	257,863

continued to grow, though very slowly in recent years.

An examination of South Hampton Roads employment data by industry group gives greater insight into the differing patterns of population versus employment growth as well as into the contrasting economic roles played by the individual cities. The ultimate determinant of the level and rate of expansion of a region's employment and population is the size of its export base sector--those industries that export goods and services beyond the region and thereby produce net income injections. Growth in the base sector not only produces new jobs in it and attracts the population growth to fill them, but also subsequently generates growth in the non-basic, or support, sector of the regional economy, as earnings are respent locally by base sector businesses and their employees.

In South Hampton Roads, the primary component of the export base is the defense sector. This includes the military, federal employees of the Department of Defense, defense contractors, part of the shipbuilding and repair industry, and military retirees. The remainder of the export base includes manufacturing (commercial shipbuilding and repair, food-processing, chemicals, and light manufacturing), non-defense port-related activities, state and federal government non-defense activity (including higher education), tourism, agriculture, and portions of the retail and financial sectors serving customers principally in North Carolina and on the Virginia Peninsula. The size of the export base sector cannot easily be precisely quantified, but a qualitative examination of its major components over the 1960-1990 period leads to the following conclusions: (1) As with total employment, base sector jobs were originally heavily concentrated in the older, urban core of South Hampton Roads. (2) Some of the subsequent expansion in the base has been dispersed to the high growth suburban cities, but the amount of decentralization has in no way been sufficient to generate directly the far more significant gains in aggregate employment there.

The location of a disproportionate share of base sector jobs in Norfolk and Portsmouth is the direct result of the need of many major base sector employers to be in the proximity of the harbor. In 1960, 68.1 percent of the region's 19,100 manufacturing jobs were in those cities, 55.7 percent in Norfolk alone. (Both the Portsmouth percentage and the regional manufacturing total would be substantially higher, were Naval Shipyard workers classified as manufacturing workers rather than federal employees.) Similarly, in 1966, the first year for which data were available, 52.1 percent of the region's civilian federal workforce was located in Norfolk and 35.6 percent in Portsmouth. Data on the work location of military personnel within the region are extremely spotty, but the Southeastern Virginia Planning District Commission (SVPDC) estimates that in 1969, 71 percent of the 116,600 active duty military in South Hampton Roads worked in Norfolk alone.[2]

What sorts of changes have occurred in the intervening years? Since 1960, regional growth in manufacturing has lagged overall economic expansion, mirroring the state and national experience. The sector added a net 9,400 jobs in South Hampton Roads, nearly all of which were in Virginia Beach (46.5 percent) and Norfolk (40.4 percent). However, these figures overstate the economic impact of the new jobs in Virginia Beach, because a high proportion were in low-wage light manufacturing. For 1990, data show Norfolk with 51

percent of regional manufacturing jobs and 54 percent of gross manufacturing wages.

Similarly, there were no major shifts in the location of regional defense activity to the suburban cities. Norfolk's share of federal civilian employment dropped from 52.1 percent in 1966 to 48.1 percent in 1990, but Portsmouth increased its proportion from 35.6 percent to 43.0 percent. The most recent data on military jobs reveal virtually no changes in location. Only high-tech defense contractors appear to have located disproportionately outside of the old core. Port activity, by definition, also stayed "downtown."

One sector of the region's economic base that did exhibit significantly higher rates of expansion outside of the original economic core has been tourism. Data from the Virginia Division of Planning and from another SVPDC study[3] indicate that tourism employment roughly quadrupled between 1965 and 1986 to 4,400 jobs. Approximately three-fourths of the gains occurred in Virginia Beach and most of the remainder in Norfolk. However, this sector remains a relatively small component of the regional base.

From the informal analysis of regional base activity, it is apparent that the explosive growth of employment in the newer parts of South Hampton Roads did not derive directly from the expansion of the economic base there. Instead it has been produced by local support sector spending of new residents in the outlying cities who were either drawn to the region by base sector expansion or migrated from the urban core--spending in areas such as trade, services, construction, transportation, utilities, finance and real estate that principally serve local consumption needs. The size of the support sector in South Hampton Roads can be approximated statistically by the level of private non-manufacturing employment (excluding agriculture). The total number of persons employed in this sector rose from 89,200 in 1960 to 257,900 in 1990 (Table 3, on page 23). Growth in private non-manufacturing employment thus exceeded the rate of aggregate regional job expansion, in part a reflection of general structural trends in the American economy. The lion's share of this growth occurred in the service and the retail and wholesale trade industries. Services experienced both the largest absolute and percentage increases in the number of jobs as employment increased from 18,400 in 1960 to 31,500 in 1970, 55,600 in 1980, and 95,000 in 1990. The trade sector followed, with increases from 38,900 in 1960 to 49,400 in 1970 to 68,200 in 1980 and to 97,000 in 1990, respectively. High percentage increases for the thirty-year period were also recorded by the regional finance-insurance-real estate (FIRE) sector and the construction industry, with FIRE employment rising from 5,800 jobs in 1960 to 19,800 jobs in 1990 (+243 percent) and construction employment rising from 9,400 to 25,300 (+167 percent).

What is even more striking than the amount of aggregate regional growth is the nearly astronomical rate of expansion in support sector activity in the rapid population growth cities of Virginia Beach and Chesapeake--as well as the positive divergence of these rates, both from the rest of the region and from their own rates of population growth. Over the thirty-year period, the number of private non-manufacturing jobs skyrocketed from 4,500 to 92,300 in Virginia Beach and from 3,000 to 31,700 in Chesapeake. Consequently, Virginia Beach's share of regional sector employment rose from only 5.1 percent in 1960 to 35.8 percent in

1990 and Chesapeake's share increased from 3.3 percent to 12.3 percent, while Norfolk's percentage plummeted from 72.2 percent to 39.9 percent, in spite of continued job growth in that city.

These changes left the employment figures for these cities in much closer alignment with their population shares than in 1960. Although Norfolk still retains a disproportionate share of non-basic activity (especially in view of its lower average household income), the support sector employment figures point to a substantial shift in the degree of economic interdependence within South Hampton Roads. At the outset of the observation period, consumers in the then relatively sparsely populated parts of the region relied heavily on Norfolk, and to some extent Portsmouth, for the provision of consumer goods and services. However, as population expanded, the economies of the suburban cities of Virginia Beach and Chesapeake steadily grew increasingly self-sufficient.

To provide a better measure for the degree of intraregional interdependency over time, the ratio of actual private non-manufacturing employment per resident to expected employment per resident was calculated, where expected employment is defined as the regional average. Thus a ratio of 1 represents parity, below 1 indicates that the city is a net importer of support sector goods and services from the rest of the region, and a figure of greater than 1 identifies the city as a net exporter.[4]

The results (Table 4, page 27) vividly illustrate the decline in the reliance of Virginia Beach and Chesapeake on the traditional core. In 1960, the ratios of actual to expected employment per resident clearly pointed to the dominant role of Norfolk in the regional support economy, with the figures ranging from lows of 0.28 and 0.37 for Chesapeake and Virginia Beach to a high of 1.47 for Norfolk. By 1990 the ratio had climbed to 0.78 for Chesapeake and 0.88 for Virginia Beach, still short of parity, but a remarkable transition. The relative constancy of the Norfolk ratio over time is at first surprising until one recalls that it has been sustained only through ever-increasing numbers of non-Norfolk regional residents offsetting the decline in the percentage of the purchases made by them in Norfolk businesses.

To shed further light on the changes in intra-regional economic relationships within South Hampton Roads, ratios of actual to expected employment were also calculated for the individual industries comprising the regional support sector. Results are presented for the two largest industries, trade and services (Tables 5 and 6, page 27). As of 1990, these two industries employed 97,000 and 95,000 persons, respectively, in the regional economy, together representing 74.4 percent of private non-manufacturing employment and 51.2 percent of total jobs. The employment ratios for trade and services likewise reveal the dramatic upward trend in local activity for both Virginia Beach and Chesapeake at the cost of the urban core. These results again illustrate the effects of growing population and population density in these cities in generating a constantly improving basis for the more efficient and competitive provision of goods and services to their own residents. The other side of the coin, however, is the ever-lessening marginal spillover benefits from their expanding population to the economies of older parts of the region.

Table 4
Ratio of Actual Employment to Expected Employment in
Private Non-Manufacturing for Selected Years in South Hampton Roads Cities

	Chesapeake	Norfolk	Portsmouth	Suffolk	Virginia Beach
1960	0.28	1.47	0.78	0.70	0.37
1970	0.45	1.51	0.91	0.56	0.54
1980	0.56	1.53	0.89	0.69	0.75
1990	0.78	1.47	0.78	0.67	0.88

Table 5
Ratio of Actual Employment to Expected Employment in
Retail and Wholesale Trade for Selected Years in South Hampton Roads Cities

	Chesapeake	Norfolk	Portsmouth	Suffolk	Virginia Beach
1960	0.35	1.44	0.75	0.99	0.31
1970	0.44	1.44	0.98	0.78	0.58
1980	0.55	1.43	0.90	0.81	0.83
1990	0.90	1.29	0.76	0.75	0.94

Table 6
Ratio of Actual Employment to Expected Employment in
Services for Selected Years in South Hampton Roads Cities

	Chesapeake	Norfolk	Portsmouth	Suffolk	Virginia Beach
1960	0.19	1.40	0.93	0.61	0.57
1970	0.37	1.50	0.96	0.54	0.59
1980	0.37	1.64	1.02	0.63	0.68
1990	0.50	1.62	0.88	0.63	0.86

NOTES

1. The author would like to thank Janice Hurley, City of Norfolk Department of Planning, for her invaluable assistance in assembling the data used in this study. The source of all population figures is the U.S. Bureau of the Census. Unless otherwise noted, labor force data were provided by the Virginia Employment Commission. Figures in the text are rounded to the nearest 100 persons.

2. Southeastern Virginia Planning District Commission (SVPDC), Hampton Roads Military Impact Study, January 1989.

3. SVPDC, Hampton Roads Tourism and Lodgings Study, April 1988.

4. These interpretations and subsequent discussion of time trends assume that the proportions of sales to extraregional customers remained fairly stable from city to city and, in particular, overtime.

HISTORICAL SUMMARY
Performance of Indicators Over the Business Cycle

GENERAL INFORMATION: For those interested in studying the business cycle in Virginia, this publication includes several of the economic time series for which data is readily available on a monthly basis. From time to time, new series will be added and, if necessary, others presently included will be discontinued.

Business Cycle Turning Points

The shaded spaces on the charts represent the 1980 and 1981-82 recessions as designated by the National Bureau of Economic Research (NBER). The beginning of a recession is defined as the month when aggregate economic activity in the U.S. reaches a cyclical high, from which it begins to turn down, and the end as the month when it reaches a cyclical low, from which it begins to turn up. According to NBER, the 1980 recession began in January 1980 and ended in July 1980, and the 1981-82 recession began in July 1981 and ended in November 1982. The NBER has not yet officially designated the current recessionary period.

Seasonal Adjustment

To correlate changes in a time series and changes in the business cycle it is desirable to eliminate, insofar as possible, the effect of irrelevant factors from the data comprising the series. All series currently published in Indicators have been adjusted to minimize regular seasonal fluctuations in the data in order to show only activity related to the business cycle.

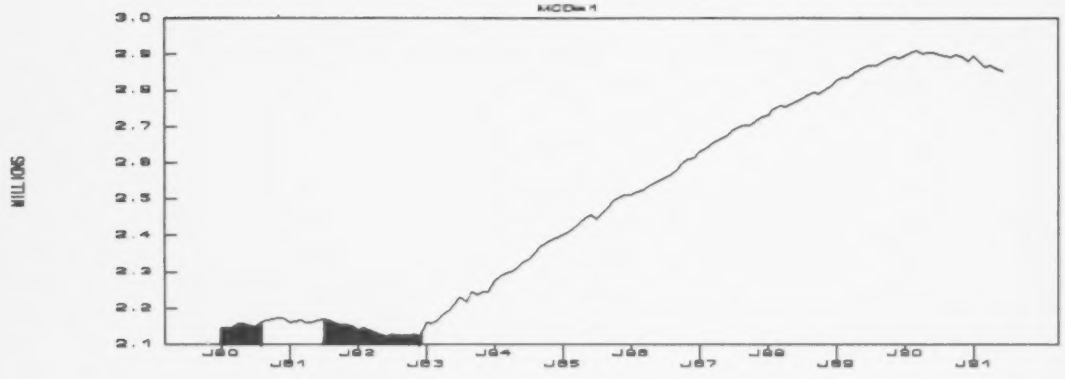
Months for Cyclical Dominance (MCD)

After seasonal adjustment there often remains a significant degree of purely random change, the effect of which can be minimized with a moving average equal in length to the MCD of the series. The MCD is an estimate of the length of the moving average which will reveal the cyclical pattern among the welter of random fluctuations in the data--the greater the MCD the more random and less cyclically significant are monthly changes in the series. Where noted, charts of historical data in this publication represent seasonally adjusted figures which have been averaged according to the MCD of each series.

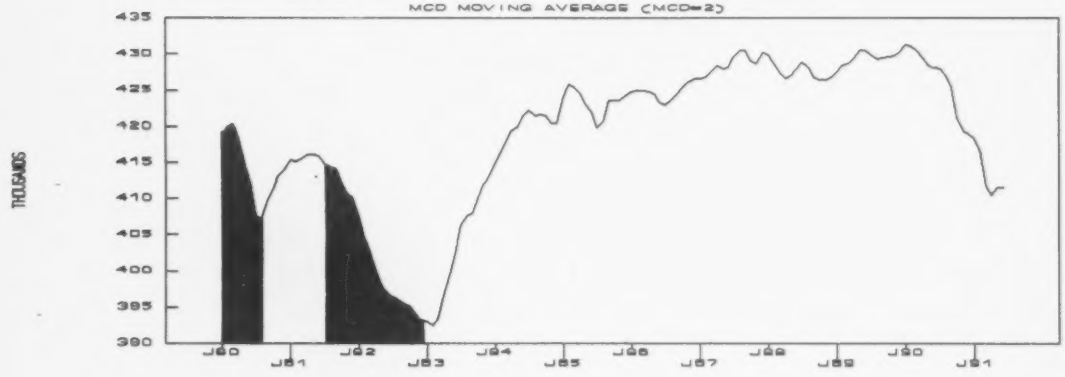
Data Sources

Nonagricultural Wage and Salary Employment.....Virginia Employment Commission (VEC)
Manufacturing Employment.....VEC
Total Unemployment Rate.....VEC
Average Weekly Initial Claims.....VEC
Insured Unemployment Rate.....VEC
Unemployment Insurance Final Payments.....VEC
Average Manhours.....VEC
Average Hourly Earnings.....VEC
Average Hourly Earnings/CPI.....VEC
Average Workweek.....VEC
Average Weekly Earnings.....VEC
Average Weekly Earnings/CPI.....VEC
New Business Incorporations.....Virginia State Corporation Commission
Valuation of Building Permits - 18 Cities.....Local Building Inspectors
New Vehicle Registrations.....Virginia State Department of Motor Vehicles
Electrical Power Sales.....Virginia Power, Appalachian Power Co., Delmarva Electric Co., Tennessee Power Company
Taxable Retail Sales.....Virginia State Department of Taxation
Taxable Retail Sales/CPI.....Virginia State Department of Taxation

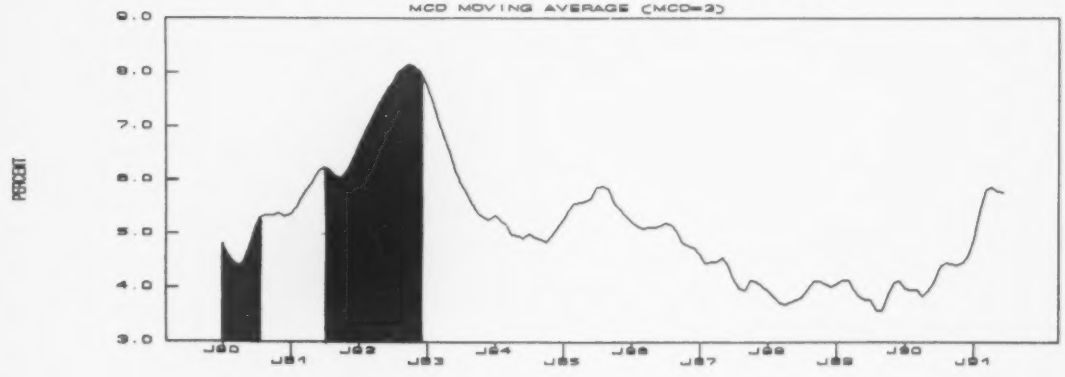
NONAG WAGE & SALARY EMPLOYMENT



MANUFACTURING EMPLOYMENT



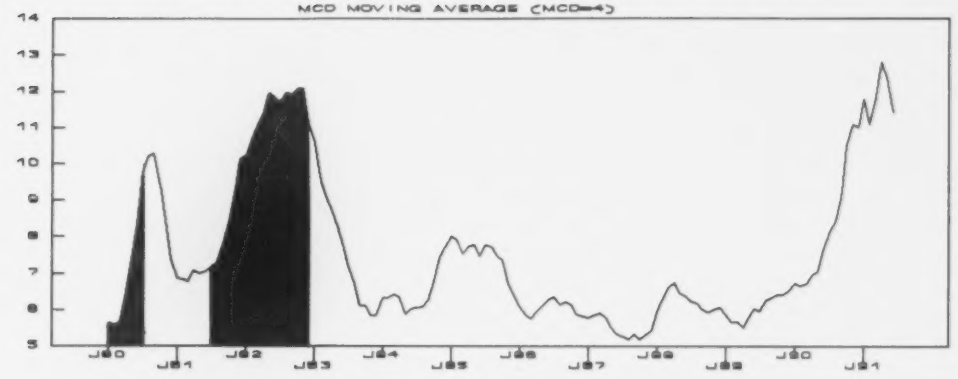
TOTAL UNEMPLOYMENT RATE



AVERAGE WEEKLY INITIAL CLAIMS

MCD MOVING AVERAGE (MCD=4)

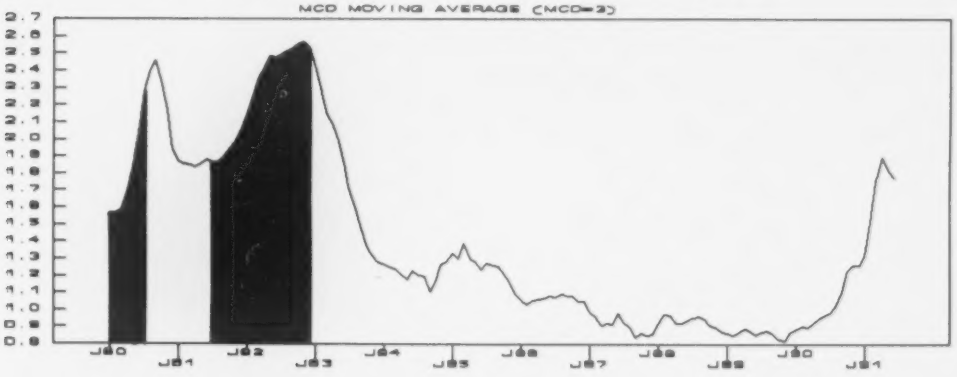
(Thousands)



INSURED UNEMPLOYMENT RATE

MCD MOVING AVERAGE (MCD=3)

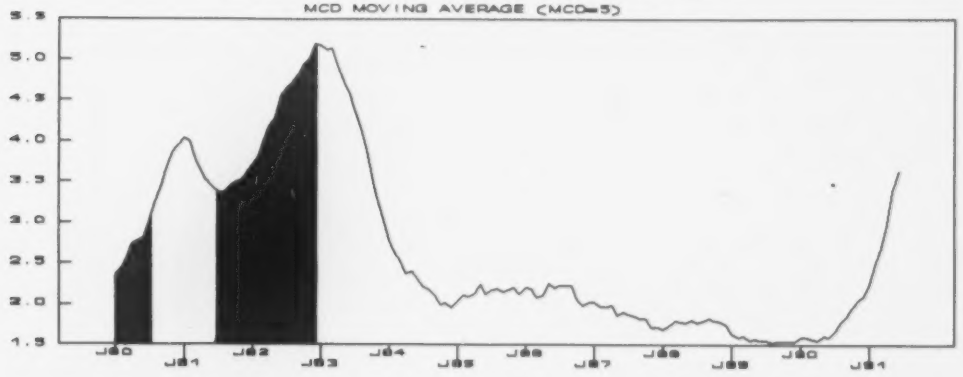
PERCENT



U. I. FINAL PAYMENTS

MCD MOVING AVERAGE (MCD=3)

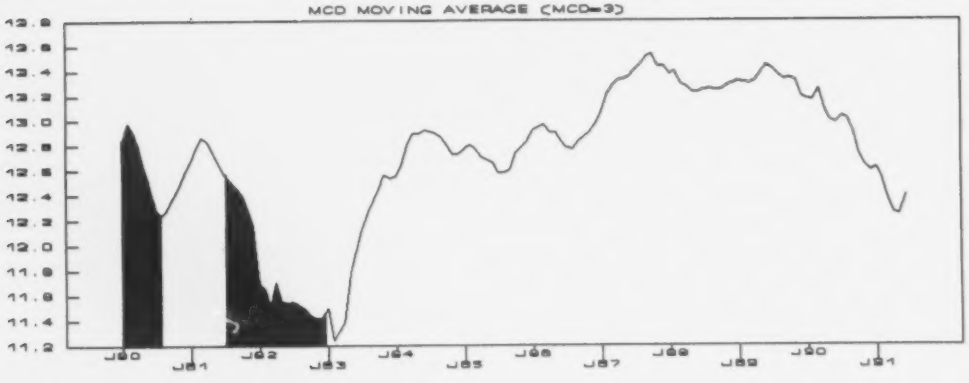
(Thousands)



AVERAGE MANHOURS

MCD MOVING AVERAGE (MCD=3)

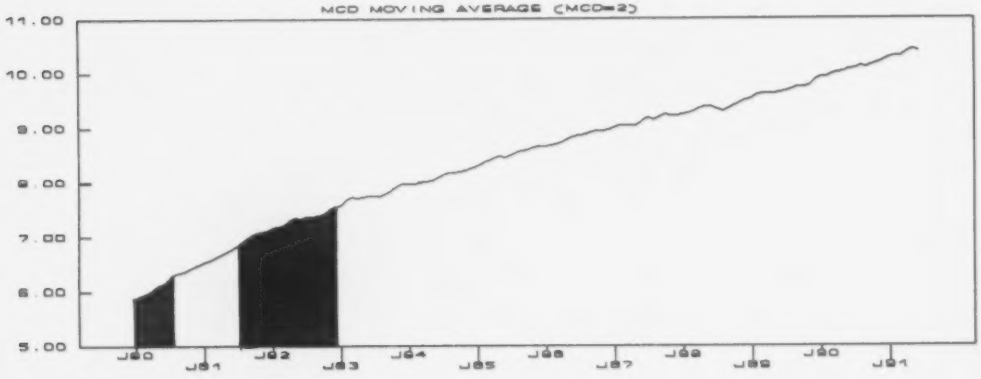
MILLIONS



AVERAGE HOURLY EARNINGS

MCD MOVING AVERAGE (MCD=2)

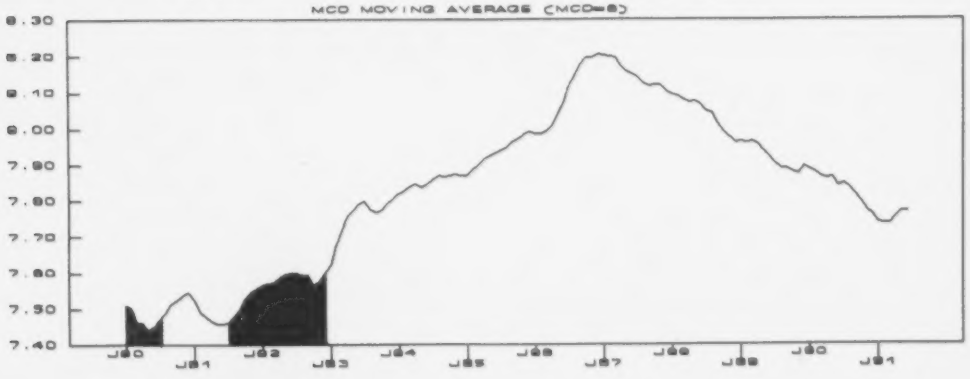
DOLLARS



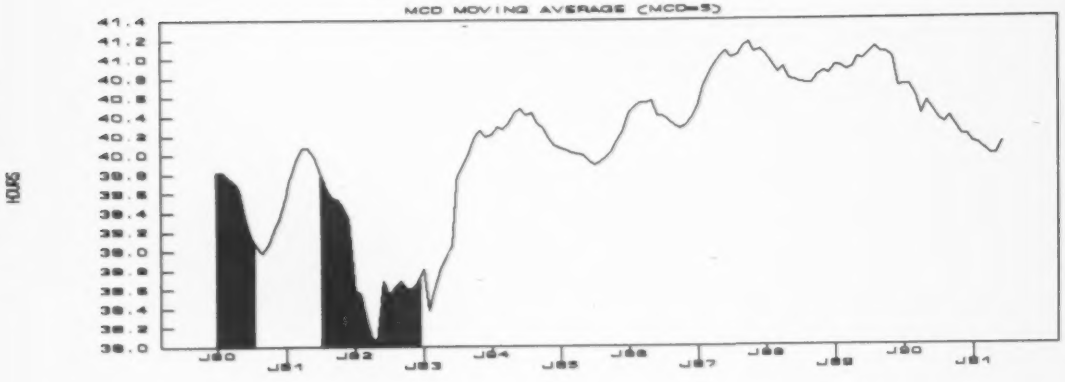
AVG. HOURLY EARNINGS/CPI

MCD MOVING AVERAGE (MCD=8)

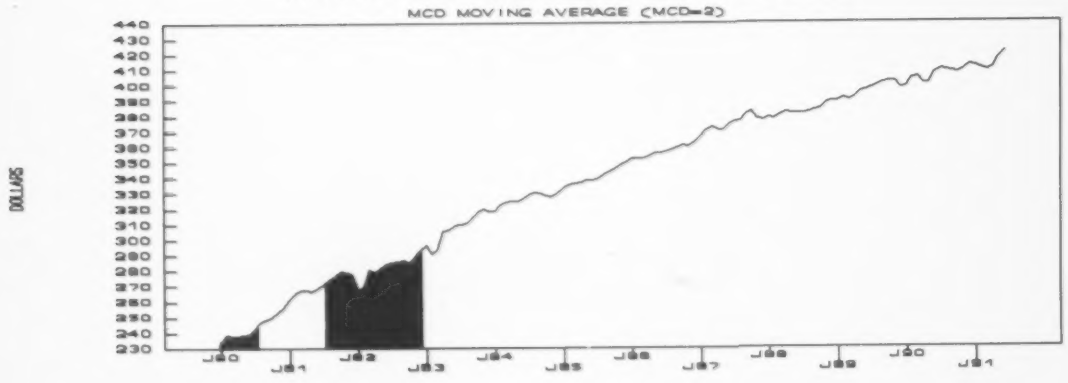
DOLLARS (82=100)



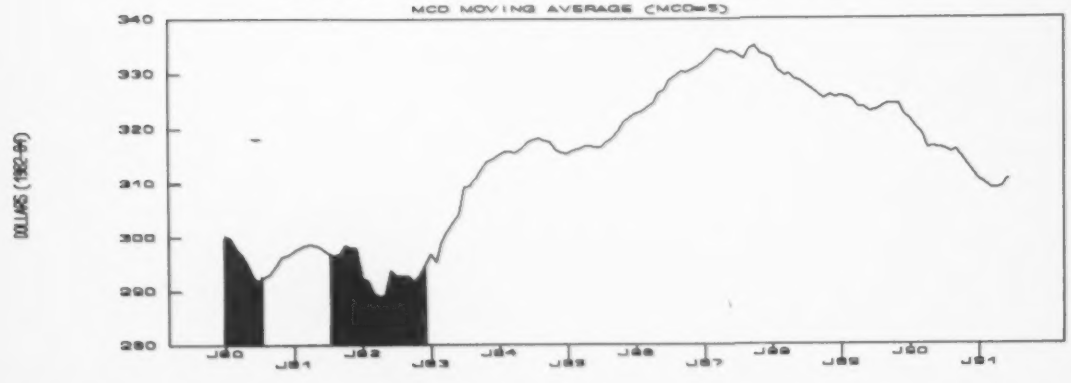
AVERAGE WORKWEEK



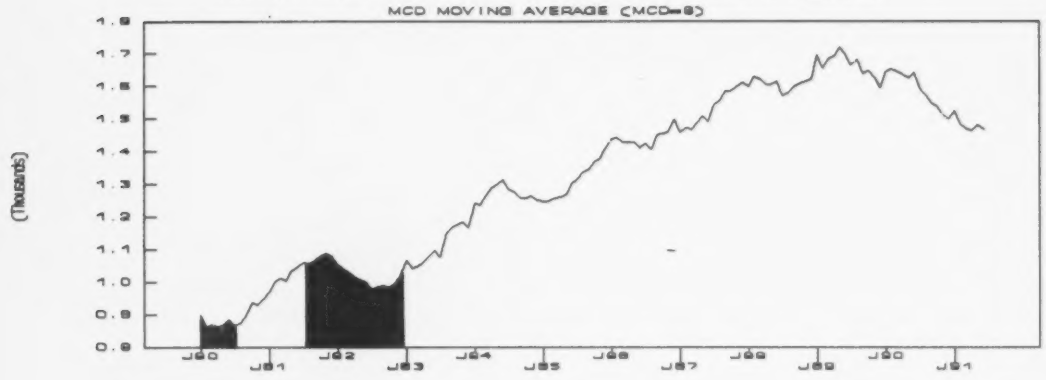
AVERAGE WEEKLY EARNINGS



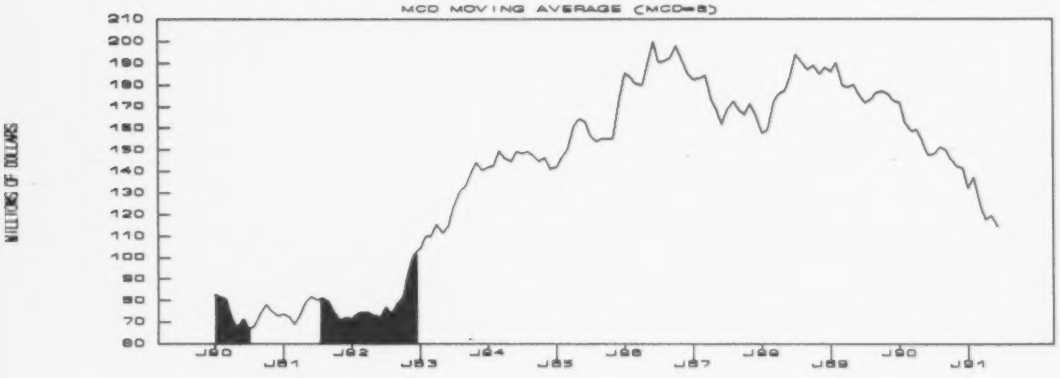
AVG. WEEKLY EARNINGS/CPI



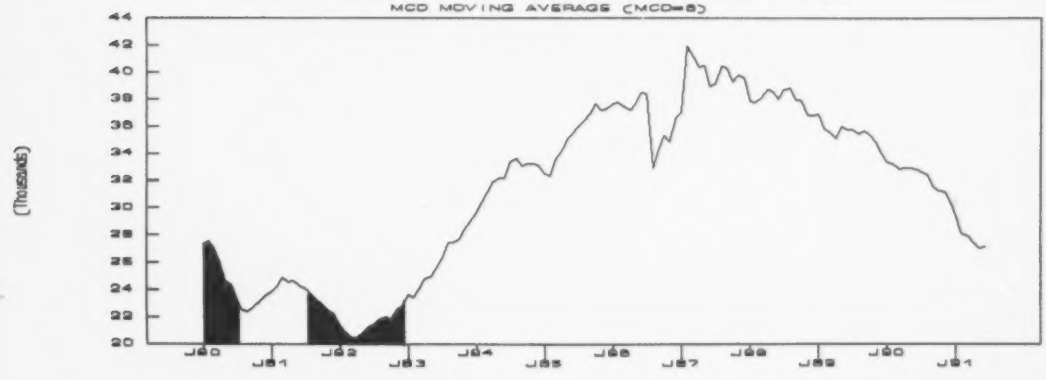
NEW BUSINESS INCORPORATIONS



VALUATION OF BUILDING PERMITS



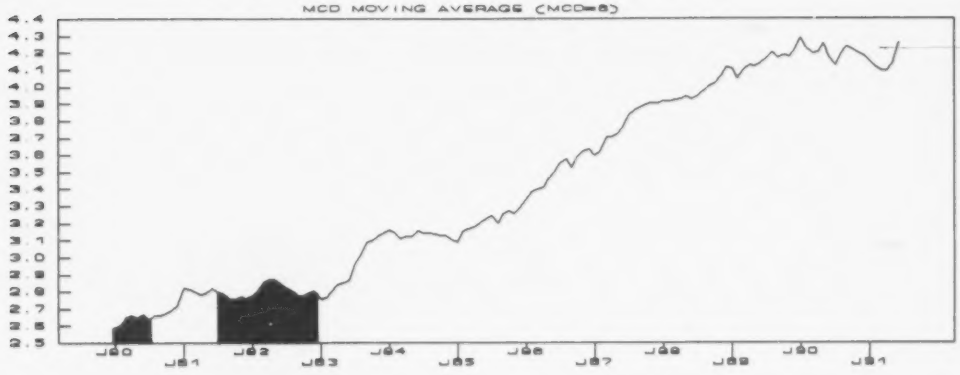
NEW VEHICLE REGISTRATIONS



ELECTRICAL POWER SALES

MCD MOVING AVERAGES (MCD=6)

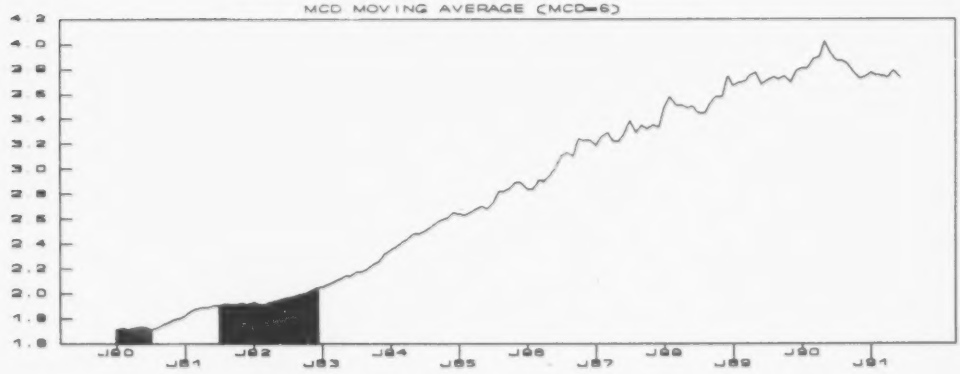
BILLIONS OF KWH



TAXABLE RETAIL SALES

MCD MOVING AVERAGE (MCD=6)

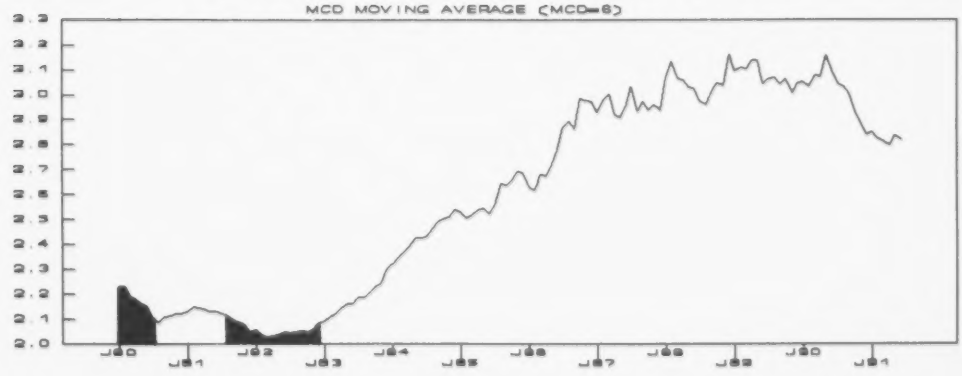
BILLIONS OF DOLLARS



TAXABLE RETAIL SALES/CPI

MCD MOVING AVERAGE (MCD=6)

BILLIONS OF DOLLARS (1982-1984)



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Economic Information Services Division
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